

RULES AND SCHEDULE

CONTAINING THE

Programme of Examinations for 1921.

(PRESENTED IN PURSUANCE OF THE
ACT 41 AND 42 VIC., CAP 66 Sec. 6, AND OF THE
ACT 3 AND 4 GEO. 5, CAP. 29, Sec. 3.)

*Ordered by the House of Commons to be Printed,
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Intermediate Education Board for Ireland.

RULES.

The Intermediate Education Board for Ireland, in pursuance and by virtue of the "Intermediate Education (Ireland) Acts, 1878 to 1913," do hereby, with the approval of HIS EXCELLENCY JOHN DENTON PINKSTONE, VISCOUNT FRENCH OF YPRES, Lord Lieutenant-General and General Governor of Ireland, make the following Rules for the purposes of the said Acts:—

SECTION I.

General Provisions regarding the examinations.

- | | |
|---------------------------------|--|
| Time and place of examinations. | 1. Examinations in accordance with the following rules will be held in each year, between the first day of June and the first day of August, at convenient centres, which will be selected by the Board with the approval of the Lord Lieutenant. |
| Examinations by printed papers. | 2. All the examinations will be conducted by printed papers, unless when otherwise directed. |
| Grades. | 3. Public notice will be given by the Board of the times at which the written examinations will be held.
4. There will be three Grades, viz., Junior, Middle, and Senior. In each of these Grades honours, exhibitions and prizes will be awarded. |
| Examination of girls. | 5. The examination of girls will be held apart from that of boys, except in cases which will be ordered by the Board.
6. The following are the subjects in which a pass and not honour may be obtained :—
The language, literature, and history of Great Britain and Ireland ;
Shorthand ;
Book-keeping ;
Manual Instruction and Practical Mathematics for Junior and Middle Grades ;
Arithmetic ;
Algebra with Geometry (for boys only in all Grades) ;
Algebra with Trigonometry (for boys only in the Senior Grade only) ;
Drawing.
7. The following are the subjects in which either pass or honour may be obtained :—
The ancient language, literature, and history of Greece ;
The ancient language, literature and history of Rome ;
The language, literature, and history of France ;
The language, literature, and history of Germany ; |

The language, literature, and history of Ireland;
 The language, literature and history of Italy;
 The language, literature, and history of Spain;
History and Historical Geography (honour course only);
 Algebra;
 Geometry;
 Experimental Science;
 Trigonometry for Middle and Senior Grades;
 Commercial Course;
 Applied Mathematics for Middle and Senior Grades;
 Music.

8. The Programme in the several subjects of examination at the ^{The} examinations which shall be held subsequently to the first day of ^{Programma.} September, 1920, is set forth in the Schedule hereto.

SECTION II.

Special Regulations as to Manual Instruction and Practical Mathematics.

9. A. To pass in this subject a student must
- (a) obtain thirty per cent. of the marks allotted to the examination paper in Practical Mathematics;
 - (b) have followed, during the educational year, the prescribed course in Manual Instruction and Practical Mathematics in an approved Intermediate School to the satisfaction of the Board's Inspector, who may test the student in such a manner as he deems necessary;
 - (c) have attended the class for Manual Instruction at least 20 times on separate days during the educational year.
- B. To be approved, the school must satisfy the Board that the accommodation and equipment for Manual Instruction are adequate, and that the qualifications of the teachers are satisfactory. The time-table of the course of instruction must be approved by the Board, and the course must be continuous throughout the Session.

SECTION III.

Special Regulations as to Experimental Science.

10. (a) In the Junior Grade the Courses in Experimental Science shall be :—

For Boys—Physical Science Course.

For Girls—Physical Science Course.

Domestic Economy.

In the Middle and Senior Grades, the Courses shall be :—

For Boys—Physical Science Course.

Natural Science Course.

For Girls—Domestic Economy.

Natural Science Course.

Physical Science Course.

Boys may take one course only in any Grade. Girls entering in Science must, in the Junior Grade, take the Physical Science Course and may take Domestic Economy in addition. In the Middle and Senior Grades they may take any one of the courses, or they may take two courses if Domestic Economy is one of them.

**Conditions
of pass.**

(b) To pass in Experimental Science, a student must obtain not less than 30 per cent. on the pass paper, or 25 per cent. on the honour paper. (The Middle and Senior Grade papers in Physical Science and in Natural Science will be arranged so as to permit candidates to obtain a pass by obtaining 30 per cent. on the pass questions or 25 per cent. on the honour questions in one section of the course only.) The student must also be certified by the Department of Agriculture and Technical Instruction to have fulfilled the following conditions :—

(1) To have satisfactorily followed the prescribed Course of instruction in a school approved by the Department (see (d) *infra*).

(2) To have obtained during the session, as a minimum :—

At least seventy hours' instruction in the Science course selected.

In cases of an epidemic a less number of hours may be accepted.

(3) To have worked through the prescribed course to the satisfaction of the Department's Inspector, who may test the student in such a manner as he deems necessary.

Honours.

(c) To pass, with honours, a student must :—

(1) Fulfil the pass conditions in the course or courses in which he presents himself ;

(2) Pass in the same course or courses a qualifying practical test by an Inspector of the Department ;

(3) Have obtained during the session as a minimum in the Junior Grade at least 100 hours' and in the Middle and Senior Grades at least 120 hours' instruction in Science, except in the case of Domestic Economy, in which at least 70 hours' instruction will be sufficient in any Grade.

In the case of an epidemic a less number of hours may be accepted.

(4) Obtain not less than 50 per cent. on the honour examination paper in such course or courses.

**Conditions
of approval
of Schools.**

(d) To be approved by the Department a school must satisfy the following conditions :—

(1) The accommodation and equipment must be adequate.

(2) The instruction in the courses in Experimental Science must be under teachers whose qualifications have been recognised in writing by the Department.

(3) The Time Table of the Course of instruction must be approved by the Department, and the course must be continuous throughout the session.

(4) The Inspectors must satisfy themselves that the instruction is of a class superior to that given in elementary schools.

SECTION IV.

Special Regulations for the Examination in Music.

11. (a) The examination will include both theory and practice.
- (b) No student who has not been certified by the examiners to have passed the practical examination is eligible for the examination in theory. The maximum of marks assigned to the practical test will bear to the maximum of marks assigned to the examination in theory the proportion of five to three. Relation between two parts of examination.
- (c) For the practical test students may take the course for any Grade not lower than one in which they have already passed in music, but for the theoretical examination they must take the course prescribed for the Grade in which they present themselves for the general examination. Latitude allowed in selecting Grades.
- (d) To obtain a pass students must obtain 50 per cent. on the practical course and either 50 per cent. on the pass or 40 per cent. on the honour paper in theory. Conditions of a pass.
- (e) To obtain honours students must present themselves for the practical examination in a programme not lower than that of the Grade in which they enter for the general examination and either pass in theory and obtain 80 per cent. on the practical course, or pass on the practical course and obtain 60 per cent. on the honour paper
- (f) Scales and arpeggios are to be played from memory, and as quickly as is consistent with accuracy.
- (g) In the practical test no person but the student under examination shall be allowed in the room with the examiners.

SECTION V.

Special Regulations for the Examination in the Commercial Course.

12. The Courses included under the title of Commercial Course are as follows :—

JUNIOR GRADE.

PASS.

- (a) Commercial Geography.
- (b) Book-keeping.
- (c) Précis and elementary Business Methods.
- (d) Shorthand.

To obtain a pass students must obtain 30 per cent. on the pass paper or 25 per cent. on the corresponding honour paper in each of three of these Courses.

HONOURS.

- (a) Outlines of Industrial History and Commercial Geography.
- (b) Book-keeping.
- (c) Précis and Business Methods.

To obtain honours students must obtain 25 per cent. in each of these Courses and must in addition obtain 50 per cent. on the aggregate.

MIDDLE GRADE.

PASS.

- (a) Industrial History and Commercial Geography.
- (b) Précis and Business Methods.
- (c) Book-keeping.
- (d) Shorthand.

To obtain a pass students must obtain 30 per cent. on the pass paper or 25 per cent. on the honour paper in each of the Courses (a), (b), and (c).

HONOURS.

More difficult questions on the pass course in (a), (b), and (c).

To obtain honours students must obtain 25 per cent. in each of these Courses and must in addition obtain 50 per cent. on the aggregate.

SENIOR GRADE.

PASS.

- (a) Industrial History and Commercial Geography.
- (b) Business Methods.
- (c) Book-keeping.
- (d) Shorthand.
- (e) Elements of Economics.

To obtain a pass students must obtain 30 per cent. on the pass paper or 25 per cent. on the honour paper in each of Courses (a) and (b) and in one other Course.

HONOURS.

More difficult questions on the pass course in (a), (b), (c), and (e). Students may take only three of these Courses.

To obtain honours students must obtain 25 per cent. in each of Courses (a) and (b) and in one other Course, and must in addition obtain 50 per cent. on the aggregate of these Courses.

The details of these Courses for each Grade are set forth in the programme of examinations.

A student taking Book-keeping or Shorthand, for the purpose of a pass in the Commercial Course, shall not count them as additional subjects.

No student can take both the pass and the honour papers in Book-keeping.

SECTION VI.

Students not eligible for examination.

13. A student will be ineligible for examination in any grade—

- (a) who has not pursued a course of study in Ireland for the full period of the educational year preceding the date of examination ;
- (b) who is a matriculated student of a university on the first day of the examination, or who has passed the matriculation examination of any University before that date ;
- (c) the 14th anniversary of whose birth occurs after the 1st day of June of the year of the examination ;
- (d) the 19th anniversary of whose birth occurs before the 1st day of June of the year of the examination.

14. A student will be ineligible for examination in a Grade lower than one in which he has already passed.

SECTION VII.

Notices and declarations to be sent in by students, and by managers ; and other matters preliminary to the examinations.

15. Students intending to present themselves for examination shall send, in the prescribed form, notice of their intention, together

Students
ineligible
for exami-
nation in
any Grade.

Students
ineligible
for exami-
nation in
particular
Grades.

Students'
January
Notices.

with satisfactory evidence of age. The notice shall specify the grade and the subjects in which, and the centre at which, the student proposes to present himself, and shall be stamped with an Intermediate Education Stamp of 2s. 6d. 2s. 6d. stamp.

Such notice and evidence must reach the Office not later than the last day of January.

Notices and evidence will be accepted if accompanied by an additional late fee of 7s. 6d., provided they reach the Office not later than the last day of February.

If the notice or evidence does not reach the Office on or before the last day of February the student will not be allowed to present himself for examination.

The examination of the student will be limited to the subjects specified in his notice, subject to the provisions of Rule 87.

16. The notices of students intending to present themselves for examination in music must be accompanied by an extra fee of 10s. 6d. Music.

17. A.—The Board will accept as satisfactory evidence of age a certified extract from a public registry of births, or, if the student's birth was never registered, they may accept a statutory declaration made by a parent or guardian stating, in the prescribed form, the date of birth, and also specifying:— Evidence of Age.

- (a) declarant's means of knowledge of the date of birth as so stated, and
- (b) the reasons why the birth was not registered.

Managers of schools, parents, guardians, and students are warned that, except as specified below in B, the following documents, which have frequently been offered, will not be accepted as evidence of age in the case of students born in the United Kingdom:—

- (i.) Baptismal Certificates;
- (ii.) Certificates of Registry of Birth;
- (iii.) Certified extracts from public registers of birth issued for specific purposes only under the following or other Acts of Parliament, viz:—
 - (a) The Factory and Workshop Act, 1901; or
 - (b) The Irish Education Act, 1892; or
 - (c) The Friendly Societies' Act, 1896; or
 - (d) The National Health Insurance Act; or
 - (e) The Representation of the People Act, 1918

B.—In the case of students born abroad the Board may accept any one of the following documents as evidence of age, provided they are satisfied (a) that a certified extract from a public registry of births is not obtainable, and (b) that the document is duly authenticated, and states the date of birth:—

- (i.) A certificate of Birth or Baptism extracted from a register of births or baptisms of any Church, Missionary Society, Army Regimental Record, British or Foreign Consulate, or Ship's Record.
- (ii.) A declaration as to date of Birth made by a parent or guardian before a Notary Public, Magistrate, or British or Foreign Consul. Such declaration must state specifically the reasons why any of the documents mentioned in (i.) cannot be obtained.

18. Candidates for a Burke Memorial Prize shall send to the Board, in the prescribed form, the particulars necessary to show that they are entitled to compete. Burke Memorial Prizes.

Subject to the exception in the next following rule, such forms must reach the Office not later than the 31st day of March.

19. A candidate whose father becomes entitled after the 31st day of March to such salary or pension as qualifies his children to compete for these prizes may send these particulars in the prescribed form at any time provided that the forms reach the Office before the first day of the examinations.

Examina-
tion No.

Admission
Card.

20. Each student will be assigned a number, by which alone he shall be known in the subsequent written examination.

21. No student will be admitted to the examination without an admission card.

Such admission card will not be issued unless a declaration under Rule 22 or 23, as to a course of study, shall have been received in the case of each student.

May
Declaration
for Schools.

22. Each manager shall, after the 1st day of May, send to the Board, in the prescribed form, a declaration signed by him, stating the names of the students upon the roll of his school who have pursued their studies in his school during the educational year then current.

Such declaration must reach the Office not later than the 21st day of May.

School Grant shall not be paid in respect of any student whose name does not appear on the declaration furnished from the school whose manager claims the grant.

May Decla-
ration for
students
not on a
school roll.

23. A private student or a student whose name is not included in the declaration of a manager under the last preceding rule shall, after the 1st day of May, send to the Board, in the prescribed form, a declaration, made by himself, and certified as correct by his parent or guardian, that he has pursued his studies in Ireland during the educational year then current.

Such declaration must reach the Office not later than the 21st day of May.

Such declarations received after the 21st day of May will be accepted if accompanied by a late fee of 2s. 6d. provided they reach the Office on or before the first day of the examination.

If such declarations do not reach the office on or before the first day of the examination, the student will not be allowed to present himself for examination.

SECTION VIII.

Conduct of Students during the Examination.

Rules for
direction of
students.

24. Each student presenting himself for examination in mathematical and science subjects is required to bring with him the necessary mathematical instruments.

25. A student shall not bring into the examination room, or have in his possession, or under his control, or within reach, whilst he is in such room

(a) any book or paper (save his admission card, the examination paper, and such answer books as shall have been supplied to him by the superintendent); or

(b) any slate, memorandum or notes.

26. A student shall not, while in the examination room,

(a) use, or attempt to use, any book, memorandum, notes or paper (save the examination paper and such answer books as shall have been supplied to him by the superintendent); or

- (b) aid, or attempt to aid, another student ; or
- (c) obtain, or attempt to obtain, aid from another student ;
or
- (d) communicate, or attempt to communicate, in any way with another student.

Any student found by the superintendent violating this rule or Rule 25 will be expelled from the examination room, and will not be permitted to return to it during the continuance of the examination in the subject in which the examination papers shall have been then distributed.

27. A student

- (a) shall not write on the examination paper or admission card, or on any of the mathematical instruments brought with him ;
- (b) shall not write in his answer book anything that is not directly connected with the subject-matter of the questions to be answered ;
- (c) shall not remove from the answer books any leaf or part of a leaf ;
- (d) shall not take out, or attempt to take out, of the examination room, any answer books, whether used or unused ;
- (e) shall not damage the examination room or its furniture ;
- (f) shall, immediately after he has concluded his answers, deliver his answer books, whether used or unused, enclosed in an envelope endorsed with his examination number, and also his examination paper (except at the close of the period allotted for the examination) to the superintendent, and shall then leave the examination room ; and
- (g) shall, in all matters relative to the examination, submit to, and obey, the directions of the superintendent.

28. Any student adjudged by the Board to have violated any of the Rules 25, 26, or 27 will be liable to be deprived of the examination or of marks, or to have such deduction made, as the Board may think fit, from any sum payable in respect of any prize or exhibition obtained by him, according to the judgment the Board may form of the gravity of the offence ; and the Board may, if they think fit, publish his name and address, as given in his notice of intention to present himself for examination, as those of a student who has been so deprived.

Penalty for Violation of Rules.

SECTION IX.

Conditions of passing the Examination in particular Subjects.

29. Except as provided by Rules 9, 10, 11 and 12, the minimum number of marks on which a student may pass the examination in any subject shall be :—

Pass.

- (a) on the pass questions in any subject, 30 per cent. of the marks allotted to such questions ;
- (b) On the honour questions in Algebra, Geometry, Trigonometry, and Applied Mathematics, 20 per cent. of the marks allotted to such questions ;
- (c) on the honour questions in any subject other than those mentioned above in 29 (b), 25 per cent. of the marks allotted to such questions

Special
conditions
for
certain
subjects.

30. The marks on which a student may pass must include—
- (a) in English at least 20 per cent. of the marks allotted to English Composition ;
 - (b) in Greek, Latin, French, German, Irish, Italian, or Spanish, at least 20 per cent. of the marks allotted in any of these languages to Composition in that language ;
 - (c) in Algebra with Geometry and in Algebra with Trigonometry, at least 30 per cent. of the aggregate pass marks and not less than 20 per cent. of the pass marks allotted to the separate parts of the joint subject. For the purposes of this Rule 20 honour marks shall be taken as equivalent to 30 pass marks.

No student can obtain a pass in both Algebra with Geometry and Algebra with Trigonometry.

31. No student shall take pass and honour papers in the same subject, even where such subjects form part of a joint subject.

SECTION X.

Conditions of passing the Examination.

Subjects to
be taken.

32. In all Grades students may present themselves in any number of subjects in excess of those required for a pass, but, except as provided in Rule 33, to pass the examination they must pass in :—

(A)—English.

(B)—Arithmetic.

(C)—For Boys—

Algebra with Geometry ; or (in the Senior Grade only) Algebra with Trigonometry.

For Girls—

Algebra or Geometry.

(D)—One language other than English.

(E)—Two other subjects, except in the case where either Latin or Greek is the language in D, in which case one other subject will be sufficient.

The subjects taken in (E) must not include Book-keeping or Shorthand as separate subjects, or more than one Science subject ; or in the case of boys either of the subjects which form parts of the joint subject in (C).

Special
Provision
Pass
Examina-
tion, Girls.

33. In all Grades girls will be deemed to have passed the examination if—

(a) they pass in English and Arithmetic ;

(b) obtain honours in at least one subject ; and

(c) pass in the honour papers in at least two other subjects.

Students passing under this Rule, though eligible for a pass with honours, are not eligible for medals, exhibitions or prizes.

SECTION XI.

Honours, Medals, Exhibitions, and Prizes.

Honours

34. Except as specified in Rules 10, 11, and 12, to obtain honour in any honour subject students must obtain 50 per cent. on the honour paper in that subject, except in the mathematical subjects, in which 35 per cent. will be sufficient.

35. No student will be awarded honours in Greek, Latin, French, German, Irish, Italian, or Spanish, who shall not have obtained at least 40 per cent. of the marks assigned in any of these languages to Composition in that language.

36. A student will be adjudged to have passed the examination with honours who has passed the examination, and has obtained honours in at least three subjects. Pass with Honours.

37. Exhibitions tenable for one year and prizes may be awarded on the results of the examination in accordance with the following rules. Exhibitions.

38. The Exhibitions will be of two classes :—

Classes of Exhibitions.

Those of the first class will be of the value :—

in the Junior Grade of £15 ;
in the Middle Grade of £20 ; and
in the Senior Grade of £30.*

Those of the second class will be of the value :—

in the Junior Grade of £10 ;
in the Middle Grade of £15 ; and
in the Senior Grade of £20.

39. The prizes shall consist of books, philosophical apparatus, or other objects useful for educational purposes, of the respective values of £3, £2, and £1. Prizes.

40. Separate awards of Exhibitions and Prizes will be made in each of the following groups of subjects :— Groups for Exhibitions.

GROUP A. (1) English, (2) Latin, (3) Greek.

GROUP B. (1) English, and any two of the following, (2) French, (3) German, (4) Irish, (5) Latin, (6) Spanish, (7) Italian.

GROUP C.

(1) English and

For Junior Grade—

(2) Arithmetic, (3) Algebra, (4) Geometry ;

for Middle and Senior Grades—

(2) Arithmetic, (3) Algebra, (4) Geometry, (5) Trigonometry.

GROUP D. (1) English, and

For Junior Grade,

two of the following :—

(2) One of the courses in Experimental Science, (3) Commercial Course; (4) Geometry, (5) Algebra ; one, at least, being either (2) or (3) ;

For Middle and Senior Grades, either—

(a) two of the following—

(2) Applied Mathematics or one of the Experimental Science courses, (3) Commercial Course, (4) Algebra, (5) Geometry, (6) Trigonometry—one, at least, being either (2) or (3) ;

or—

(b) One Section of the Physical Science Course or of the Natural Science Course and two of the honour mathematical subjects.

41. To each subject 400 marks shall be allotted, except
- in Group C, in which 400 marks shall be allotted to English and 800 to the combined mathematical subjects; each mathematical subject being of equal value except Arithmetic, to which shall be allotted half as many marks as to one of the other mathematical subjects;
 - in Group D, where the alternative (h) is taken, in which case 400 marks shall be allotted to English and 800 to the remaining subjects of which marks one-third shall be allotted to each mathematical subject and one-third to the Section of the Science Course.

Marks
counting
for Exhibi-
tions.

The marks for awards shall be reckoned as follows :—

- In English, the excess gained over 50 per cent.
- In Greek and Latin in all Grades and in the mathematical subjects in the Junior and Middle Grades the excess gained over 20 per cent.
- In the mathematical subjects in the Senior Grade the excess gained over 15 per cent.
- In other subjects, the excess gained over 25 per cent.

Students
ineligible
by age for
prizes and
exhibitions.

42. (a) A student will be ineligible for prizes, medals, or exhibitions whose age on the first day of June preceeding the examination shall exceed :—

16	years	in the case of	Junior Grade	students.
17	"	"	"	Middle Grade
18	"	"	"	Senior Grade

- (b) A student will be ineligible for prizes, medals, or exhibitions in a grade in which he has already been awarded an exhibition.

Eligibility
for Awards.

43. To be eligible for awards in any group, students—

- must pass the examination;
- must obtain honours in each honour subject of the group except in the case of Group D alternative (b), in which students must obtain honours in the mathematical subjects and obtain at least 50 per cent. on the honour questions in the Section of the Science Course chosen;
- must obtain honours in one other subject;
- must be within the ages specified in Rule 42;
- of the marks obtainable under Rule 41, must, except as provided in Rule 44, have obtained—
for an exhibition of the first class, not less than 500 marks;
for an exhibition of the second class, not less than 400 marks;
for a £3 prize, not less than 375 marks;
for a £2 prize, not less than 350 marks;
for a £1 prize, not less than 325 marks.

Prizes and exhibitions will not necessarily be awarded to all students qualified under this and the following Rule.

44. For girls taking the subjects of Group A or C, the minimum will be

- for an exhibition of the first class, 375 marks;
- for an exhibition of the second class, 300 marks;
- for a £3 prize, 285 marks;
- for a £2 prize, 270 marks;
- for a £1 prize, 250 marks.

45. Subject to the provisions of Rules 46 and 47, the number of exhibitions allotted to each of the Groups set forth in Rule 40 will be as follows :—

FOR BOYS.

Senior Grade, 4 first and 6 second class.
Middle Grade, 6 first and 8 second class.
Junior Grade, 10 first and 15 second class.

FOR GIRLS.

Senior Grade, 2 first and 4 second class.
Middle Grade, 4 first and 6 second class.
Junior Grade, 6 first and 8 second class.

46. Should the number of students qualifying for exhibitions in any group of any grade exceed the number of exhibitions allotted to such group under Rule 45, the Board may at their discretion increase the number of such exhibitions :—

- (a) by assigning to such group exhibitions for which there are not qualified candidates in any other group ; or
- (b) by adding further exhibitions, provided always that the increase in the number of exhibitions in any group shall not exceed one-fifth of the total number of exhibitions assigned to such group under Rule 45.

47. Additional exhibitions may be awarded in a course if two or more students obtain equal marks.

48. The amount of any exhibition, instead of being paid to the student, shall be paid to his parent or guardian, who shall sign an undertaking that the amount of the exhibition shall be spent either in the payment of any sums due to the manager of a school for the student's education and maintenance during the educational year in respect of which the exhibition was obtained, or for the future educational advancement or interest of the student. Exhibitions made of application.

49. A student who has obtained an exhibition shall send to the Board an undertaking, in the prescribed form, signed by his parent or guardian, that the amount of the exhibition will be spent as required in the preceding rule. Such undertaking must reach the Office on or before the 1st day of October following the examination. If the form of undertaking does not reach the Office on or before that day the student's right to the exhibition shall lapse, unless the Board shall otherwise direct, and in lieu thereof the student shall receive a prize of £3. Statement of intention

50. In case distinguished merit has been shown, bronze medals may be awarded to students in the Junior, Middle, and Senior Grades, respectively, who having passed the examination otherwise than under Rule 33, have obtained the highest marks— Medals

- (1) in English ;
- (2) in Arithmetic ;
in the honour papers
- (3) in Greek ;
- (4) in Latin ;
- (5) in History and Historical Geography ;
- (6) in each modern language ;
- (7) in Algebra ;
- (8) in Geometry ;
- (9) in Trigonometry ;

- (10) in each Experimental Science Course ;
- (11) in the Commercial Course ;
- (12) in Applied Mathematics.

Case of
equality of
marks.

51. More than one medal may be awarded in a subject if two or more students obtain equal marks.

SECTION XII.

Special Prizes.

Prizes for
Composition.

52. Provided sufficient merit be shown, prizes in books, philosophical apparatus, or other objects useful for educational purposes may be awarded to students, in the Junior, Middle, and Senior Grades, who shall have passed the examination otherwise than under Rule 33, and shall have obtained the highest marks in English Composition, or in Composition in any of the following languages :—

Greek, Latin, French, German, Irish, Italian, or Spanish.

Such prizes will be each of the value of :—

- £4 in the Senior Grade ;
- £3 in the Middle Grade ; and
- £2 in the Junior Grade.

Prizes to be
subject to
approval of
Board.

53. All books, philosophical apparatus, or other objects useful for educational purposes, selected as prizes, will be subject to the approval of the Board.

SECTION XIII.

Certificates.

Certificates
of passing.

54. Certificates will be issued to all students who have passed the examination ; such certificates will specify the subjects in which the students have passed or have obtained honours.

When a student passes in each branch of a joint mathematical subject these branches will be stated separately on the certificate.

Certificates
for Music.

55. Special certificates will be issued to students successful at the examination in music provided they have passed the examination generally. Such certificates will specify whether the students have passed or have obtained honours.

SECTION XIV.

School Grant.

Conditions
to be
observed by
managers of
schools.

56. The school grant will be paid to managers of schools who, in addition to observing the other rules of the Board, shall have complied with the following conditions, viz. :—

Inspection.

- (a) Each manager of a school shall, when required by the Board, sign a consent, in the prescribed form, to have his school inspected, and shall permit his school to be inspected accordingly, and shall furnish to the Board or its inspectors the information which the Board shall deem needful for carrying out this inspection.

May
Declaration.

- (b) He shall, within due time, sign the declaration prescribed by Rule 22, in the case of each pupil in respect of whom he intends to claim the school grant.

Claim
before 15th
October.

- (c) He shall send to the Board, in the prescribed form, in duplicate, his claim for such grant. This claim must reach the Office not later than the 15th day of October next after the examinations in respect of which the school grant may be claimed.

(d) He shall send in the prescribed form, in duplicate, a time table of the work in his school. These forms must reach the office not later than the first day of October.

57. Payment of school grant, including payment of fees dependent on the results of inspection of schools, may be withheld :

(a) if the manager shall fail to satisfy the Board, either by the report of the Board's inspector, or by the production of such other evidence as the Board may require, that the school is provided with such accommodation for its pupils as the Board shall consider sufficient ;

(b) if the manager shall fail to satisfy the Board on the like evidence that the school is provided with sanitary arrangements and exercise ground which the Board shall consider sufficient ;

(c) if the manager shall be adjudged by the Board to have willfully published any confidential information supplied to him by the Board.

58. The manager shall keep, during the school year, the attendance book furnished by the Board, and shall produce the same when called upon. He shall enter in it the names of all students in his school between the ages of 12 and 19 years, with the dates of their attendances. Attendance Book.

The marking, in accordance with the regulations made by the Board, of the attendance book must be completed before the end of the attendance on each day.

Attendance on any day shall mean that the pupil shall be present in the school for not less than three hours, under instruction in some of the subjects included in the Board's programme, or, in the case of pupils between the ages of 12 and 14, in an approved course of study, unless in special cases it shall be otherwise determined by the Board. Provided that on a day which is a school half-holiday attendance for not less than two hours shall suffice.

The attendance book shall be returned to the Board immediately after the last day on which attendances are marked, and in no case must it reach the Office later than the 15th day of September.

59. The pupils in respect of whom the school grant shall be payable will be those only whose names shall have been on the Attendance Book on the 1st day of October next preceding the examinations, and shall each have made at least one hundred attendances, calculated in accordance with Rule 58, at that school, during the period from that date to the 31st day of May following, not more than one attendance being counted for each day. In respect of whom the School Grant payable. 100 Attendances.

In case of an epidemic the Board may, if they think proper, accept a less number of attendances than 100.

60. The School Grant will consist of :—

(a) A capitation grant which will be made to the manager of every school for each student, subject to the preceding rule, who shall have passed the examination. The amount of this capitation grant will depend on the Grade and will be in such proportion for the several Grades respectively as the Board shall decide. School Grant.

(b) The capitation grant will be increased in the case of honour students by such a percentage as the Board shall decide.

- (c) No capitation grant shall be paid in respect of the same student in the same Grade in more years than one, unless in the year next after that in which he first passed he shall have risen from a pass to a pass with honours. In this case there shall be payable only the excess of the grant payable for such pass with honours over the grant payable for a pass in the same year.

SECTION XV.

Bonus for Choirs and Orchestras.

Bonus.

61. With a view to encourage Choral Singing and Orchestral Music in Intermediate Schools, the Board shall have power to grant bonuses to the schools which present for examination a choir or orchestra which shall acquit itself to the satisfaction of the examiners.

Ages for
choirs and
orchestras

62. Such choir or orchestra must be composed exclusively of students under nineteen years of age on the first day of June of the year of the examination in music actually attending the school, not merely for instruction in music. The number of students on any choir list must not exceed 150.

63. In determining the amount of bonus payable in respect of a choir or orchestra the following points will be taken into consideration :—

- (a) the excellence of the performance ;
- (b) the number of students presented for examination ; and
- (c) in the case of choirs—
the number of parts in which the sight-test is performed.

Students
in respect
of whom
bonus is
payable.

64. In the calculation of the bonus for choirs and orchestras account will be taken only of the students—

- (a) whose ages on the 1st day of June of the year of the examination in music are over twelve and under nineteen years ;
- (b) whose names appear on the prescribed January forms for choirs and orchestras ;
- (c) who have been present at the examination ; and
- (d) who have made at least 100 attendances, calculated in accordance with Rule 58, during the educational year, no attendances being counted before the pupil attains the age of twelve years.

In the case of an epidemic the Board may, if they think proper, accept a less number of attendances than 100.

65. A school may present more than one choir or orchestra for examination, but no student may enter in more than one choir or in more than one orchestra.

Maximum
bonus.

66 The total bonus payable to a school for choir-singing or orchestral music may not exceed £80 in any case.

Pieces to be
performed.

67. The examination of choirs and orchestras shall include the performance of :—

(a) a piece or pieces selected by themselves, which must not have been performed by them for the examination of the preceding year ; and

(b) a piece or pieces selected by the examiners, to be performed without previous preparation. Choirs may take this piece in either the Tonic Sol-fa Notation or the ordinary stave, but a higher percentage of marks will be awarded to choirs taking the stave.

Choirs will be required to perform, in addition, two pieces prescribed by the Board.

68. Choir-singing is to be unaccompanied, and under no circumstances shall anyone take part in the performance of a choir or orchestra whose name is not on the list of such choir or orchestra submitted to the Board

69. In choir-singing and orchestral music the examiners may question the students as to their general knowledge of music.

70. Managers of schools who desire to present a choir or orchestra for examination shall give notice of their intention in the prescribed form, and submit duplicate lists of the names of the pupils composing such choir or orchestra, with a programme of the music they intend to perform, stating the parts in which the pieces will be performed by the choir, and the system of notation adopted. Notice.

These forms and lists must be accompanied by a fee (by postal or post office order or cheque) of £1 ls. for each choir or orchestra and the statutory declaration as to age under Rule 71, and must reach the office on or before the last day of January.

71. A statutory declaration of the ages of the students in a choir or orchestra must be sent to the Board. Such declaration must reach the Office on or before the last day of January. Evidence of age for choirs and orchestras.

72. Claims for bonuses for choir-singing or orchestral music must be made upon the prescribed forms, which will be forwarded, on application to the Office, to managers of schools during the month of September. Such claims, together with any other particulars that may be required, must reach the Office on or before the 15th day of October.

SECTION XVI.

Advances to Managers.

73. The Board may, at their discretion, advance money to managers of schools upon approved security, to enable them to provide proper equipment and appliances for the teaching of practical science, and for similar purposes to be approved by the Board, and may agree to accept repayment of the money so advanced and interest by instalments. Purpose of Advances.

74. The Board, when they consider it just and expedient so to do, may stipulate with the manager of a school presenting pupils for examination in the natural and experimental sciences, that a certain portion of the school grant which shall thereafter become payable in respect of education in such school shall be applied in the provision of proper equipment and appliances for the practical teaching of these sciences in such school. Stipulation as to School Grant.

75. When such a stipulation has been made with the manager applying for an advance, the Board may agree with such manager that the amount of any instalment which shall accrue due on foot of the advance shall be deducted from the portion of the school grant for any future year which, by virtue of such stipulation, shall be applicable to the provision of the equipment and appliances in the last preceding rule mentioned, and in such case the Board may, notwithstanding any change in the managership of the school, deduct the amount of such instalment from such portion of the school grant for the future years. Repayment of Advance.

Security.

76. An agreement under the last preceding rule for the repayment of an advance by instalments out of the portion of the school grant stipulated to be applied as mentioned in Rule 74, either by itself or together with such personal or other collateral security as the Board may, under all the circumstances of the case, think fit to require, may be approved by the Board, and when so approved shall be deemed to be approved security within the meaning of Rule 73, and of the Recommendations contained in the General Summary of the Report of the Commission mentioned in the Intermediate Education (Ireland) Act (1900).

SECTION XVII.

Finance.

77. All sums of money payable under the Intermediate Education (Ireland) Acts, 1878 to 1913, or under these or any future rules, and the expenses of carrying the Acts into execution shall be paid out of the moneys of the Board generally.

SECTION XVIII.

General Powers.

Power to extend time.

78. Subject to the restrictions contained in the next following section the Board may by order, either general or special, extend the time appointed by these rules for doing any act or class of acts, and such order shall be valid, although made after the time appointed for doing such act shall have expired. In any such case the Board may impose such penalty as they shall determine.

Publication of Results.

79. The Board may publish such particulars of the results of their examinations and such other information relating thereto as they may think fit.

Decision of Board final upon title to exhibitions, &c.

80. The decision of the Board upon the title to exhibitions, prizes medals, and school grants, upon the amounts of exhibitions, prizes, school grants, and bonuses, upon the mode of application of exhibitions, upon the manner of keeping the attendance book, furnished by the Board, upon the equipment and appliances necessary to be provided for the teaching of practical science and for similar purposes, upon the amounts necessary to be advanced therefor, upon or in relation to the character of and approval of the security therefor, and upon any question which may arise upon the construction of their rules, shall be final and conclusive.

SECTION XIX.

Special Powers of the Board in cases of unforeseen difficulties, accidents or breaches of rules.

Power of Board to order a second examination.

81. In case of the occurrence of accidents or irregularities, or under other special circumstances, the Board may order a second examination to be held at such centre or centres as they shall think fit, in any portion of the matter of examination; and the marks obtained at such second examination will, for all intents and purposes, be regarded as if they had been obtained at the first examination, unless the Board, when ordering the second examination to be held, shall otherwise direct.

Power to amend awards of examiners.

82. In case a student, through any mistake, shall not be awarded the marks to which he is entitled on his answering, the Board may amend the award of the examiners in accordance with the facts, and

adjudge such student to have passed, or to have passed with honours, or to have obtained an exhibition, a prize, or a medal, if he shall be entitled thereto by his marks as amended.

83. If the Board shall be of opinion that irregularities or malpractices have occurred at any centre, and from the nature or extent thereof shall come to the conclusion that the authorities or teachers of any school are to blame in the matter, they shall have power to direct that such school shall not be entitled to receive any grants for that period as they may determine.

Power to disallow school grant in case of irregularities.

84. Should any list of students, claim, declaration, or other prescribed form or fee, furnished by a manager, other than those prescribed in Rule 15, fail to reach the Office on or before the date prescribed, the Board may, in their discretion, permit the list, claim, declaration, form or fee, to be received after that date; but the school grant which may become payable to such manager will be reduced by such sum not less than £1 as the Board may direct.

85. Should a manager omit from any list of students, claim, declaration, or other prescribed form the name of any student whose name might have been included therein, the Board, if satisfied of the sufficiency of the cause stated in explanation of the omission, may, in their discretion, permit the list, claim, declaration, or other prescribed form to be amended by adding thereto the name or names. A sum of not less than 2s. 6d. for each name so omitted shall be deducted from the school grant which may become payable to such manager.

86. In case a manager furnishes to the Board an incorrect declaration, or fails to carry out any scheme for the expenditure of moneys granted by the Board in the manner and for the purpose sanctioned by the Board, or fails to keep, or to keep in a manner satisfactory to the Board, the attendance book prescribed in Rule 58, the Board may make such deduction from the amount of the school grant that may be payable to the manager, as the Board may deem a sufficient penalty in the case.

87. Should a notice under Rule 15 omit to state or state erroneously any material particular the Board may allow such notice to be amended within such time as they may determine, subject to a penalty of five shillings. Provided, however, that no application to vary or add to the subjects of examination selected on the notice will be considered, unless the application is received in the office on or before the 30th April next preceding the examinations.

SECTION XX.

Regulations with regard to payment of fees dependent on the results of inspection of students between the ages of 12 and 14.

88. With a view to ascertaining the degrees of efficiency shown in Intermediate Schools in the education of pupils under the age of fourteen and not under the age of twelve years, the Board shall during the year ending 31st July, cause inspection to be made of each Intermediate School, the manager of which consents, in manner prescribed by these Rules, to have such inspection made.

89. Payment shall be made to managers of schools in respect of such year of fees dependent on the results of such inspection.

90. The Board shall set apart, in respect of each year, for the payment of fees to managers of schools, dependent on the results of inspection of pupils under the age of fourteen and not under the age

of twelve years, such sum as the Board may determine, not exceeding one-sixth of the total amount available in respect of that year for the payment of fees to managers of schools.

91. Payment of fees shall depend upon the following conditions :—

(a) A Grant, hereinafter called the "Inspection Grant," shall be paid in respect of the year to the manager of each school who signs, in the prescribed form, a consent to have his school inspected, and satisfies the Board that the school is an Intermediate School.

(b) The form of consent shall be accompanied by a syllabus in duplicate of the year's work of pupils attending the school who are under the age of fourteen and not under the age of twelve years.

The form of consent and the syllabus must reach the Office on or before the date on which the first entry of attendance of such pupils is made in the Attendance Book and not later than 1st October.

(c) The Inspection Grant payable to the manager of each school shall consist of a capitation grant for each student who shall have made 100 attendances calculated in accordance with Rule 58 at that school during the educational year while between the ages of 12 and 14 years, not more than one attendance being counted for each day.

In respect of students who attain the age of 12 years or the age of 14 years during the educational year and who make 50 attendances calculated as above but fail to make 100 while between the ages of 12 and 14 a capitation grant will be paid of half the amount payable in the case of students who have made 100 attendances.

The capitation grant shall depend upon the efficiency shown in the education of the pupils as tested by inspection."

In case of an epidemic the Board may, if they think proper, accept a less number of attendances.

(d) The efficiency of the instruction given shall be measured according to a standard to be determined by the Board, and hereinafter called the "Normal Standard." Schools shall be divided into three classes: (a) those which reach the normal standard, (b) those which do not reach the normal standard, and (c) those unworthy of classification. The rate of grant, so far as same depends upon efficiency, shall, for schools belonging to class (a) be 20 per cent. in excess of the rate of the grants for schools belonging to class (b). Schools belonging to class (c) shall receive no Inspection Grant.

(e) No Inspection Grant shall be paid in respect of any pupil who shall during the year give notice of intention to present for any examination of the Board in respect of which "School Grant" (as defined by Rule 60) is payable.

(f) The manager of each school shall make application to the Board, in the prescribed form, for payment of the Inspection Grant. Each such application shall be accompanied by evidence of age (as defined by Rule 17) in the case of each pupil upon whom the Inspection Grant is payable.

Such applications and evidence of age must reach the Office not later than 15th September.

92. (a) Should a manager omit to send to the Board, so as to reach the Office on or before the date prescribed by the Rules in this Section, any list of students, claim, declaration, or other prescribed form (other than evidence of age) mentioned above, the Board may, in their discretion, permit the list, claim, declaration or form to be received after that date; but the Inspection Grant under these rules which may become payable to such manager will be reduced by the sum of £1.

(b) Should a manager omit from any list of students, claim, declaration, or other prescribed form mentioned in this Section, the name of any student whose name might have been included therein the Board, if satisfied of the sufficiency of the cause stated in explanation of the omission, may, in their discretion, permit the list, claim, declaration, or other prescribed form to be amended by adding thereto the name or names so omitted. A sum of two shillings and sixpence for each name so omitted shall be deducted from the Inspection Grant which may become payable to such manager.

(c) Should a manager omit to send, so as to reach the Office on or before the date prescribed, any evidence of age required by Rule 91 (f) the Board may in their discretion permit the evidence to be received after that date, but the Inspection Grant under these rules which may become payable to such manager will be reduced by the sum of two shillings and sixpence in respect of each pupil whose evidence of age is received after the prescribed date.

93. The decision of the Board as to the title to or amount of the Inspection Grant payable to any manager shall be final and conclusive.

94. The Rules in this Section shall be construed with the Rules in the foregoing Sections.

SECTION XXI.

Non-compliance by the Board with Rules.

95. Non-compliance by the Board with these rules shall not render void any of their acts.

SECTION XXII.

96. When the date on which any form must, under these rules, reach the office, falls on a Sunday or on a Bank Holiday, the form will be accepted without penalty if it reaches the office on the day following.

SECTION XXIII.

Definitions.

97. The following expressions in the Rules are thus defined:— Definitions.

"Department" means the Department of Agriculture and other Industries and Technical Instruction in Ireland and for other purposes connected therewith;

"educational year" means the period beginning on the 1st day of October in any year and ending on the 31st day of May in the succeeding year.

"experimental science" means the various courses specified in Rule 10;

"honour subject" means any subject within Rule 7;

"honour student" means any student who passes the examination with honours (Rule 36);

"manager" means manager of a school;

"prescribed form" means such form as may, from time to time, be prescribed by the Board;

"school" means any educational institution (not being a National School or Trade Preparatory School) affording classical or scientific education in any grade, and having at least seven students eligible as regards age to enter for the Board's

examinations in the Junior, Middle or Senior Grade, who shall have attended such institution from the 1st day of October, and each of whom shall have made at least one hundred attendances at that institution within the educational year immediately preceding the examinations.

For the duration of the war and for twelve months after the conclusion thereof any school which has satisfied the conditions of the above definition of a "school" for each of the three years preceding the educational year 1916-17 shall be entitled to be regarded as having fulfilled these conditions.

"student" means any boy or girl who is pursuing courses prescribed or approved by the Board; and pronouns in the masculine gender include the corresponding pronouns in the feminine gender;

"subject" means any subject of examination in the programme.

SECTION XXIV.

Commencement of Rules.

98. The foregoing Rules will come into operation on the 1st day of August, 1920, but will not apply to anything in relation to the examinations which shall have been previously held or to anything in relation to the School year ending 31st July, 1920. All prior rules inconsistent with any of these Rules shall be revoked from the time when these Rules, respectively, shall come into operation.

SCHEDULE

Containing the Programme of Examinations.

PRELIMINARY NOTES APPLICABLE TO ALL PARTS OF THIS SCHEDULE.

1. The Board do not, as a rule, recommend any particular text books. By "School Text" is meant some edition of the works referred to, which has been prepared for school use. The Board do not approve of the use of vocabularies where dictionaries are available.

2. In marking answer books regard will be had to spelling, handwriting, and the general neatness of the answers.

3. The pass examination papers will be such as may be answered by a student of average capacity, fairly well taught. The Board would point out that one year's instruction in Classical Languages, Modern Languages, or Mathematics is not, as a rule, a sufficient preparation for the Pass examination of the Junior Grade.

4. In the literary examinations special credit will be given for style.

5. Knowledge of the various languages, including English, may be tested by questions in parsing, analysis, paraphrasing, prosody, pronunciation, and literature.

6. The passages for translation at sight will be chosen approximately within the range of the vocabulary of the authors where prescribed.

7. In the case of modern languages questions will be set and answers required expressed in the language which is the subject of examination.

8. In all honour papers in modern languages in the Junior Grade knowledge of the books prescribed for Pass shall be tested, not by passages for translation, but by questions to be answered in the language which is the subject of examination.

9. In the case of sufficient merit in Greek or Latin verse composition, additional marks may be awarded not exceeding 80 marks in each language. Full marks, however, may be obtained in Greek and Latin without verse composition.

10. In the selection of subjects for English composition regard will be had in each grade to the prescribed course in English for that grade, as set forth under the heads of Literature, Outlines of History, Geography.

In assigning marks to English composition, account will be taken of the use by the student of the materials for treatment and illustration which can be derived from the prescribed course in English for his grade.

The examiners have instructions to withhold marks in the cases of compositions which are irrelevant.

11. In some subjects the pass and honour papers will be printed on the same paper.

12. The paper in the joint Mathematical subjects of Algebra with Geometry and Algebra with Trigonometry will be the same as in the two corresponding separate subjects.

Junior Grade.

GREEK.

Pass.

Percentage
of Marks.

1. **XENOPHON : Anabasis**, Book IV. Selections, viz., chaps. 2, 3, 4, and 6; chap. 7, secs. 19-27 (inclusive); chap. 8, secs. 25-28 (inclusive). 30
2. Short sentences for translation from English into Greek, the Greek for the more difficult words being supplied. 30
3. A passage or passages from some other Greek work or works for translation at sight, the meaning of the more difficult words being given. 30
4. Greek history prior to 479 B.C. 10

Honours.

1. More difficult questions on the Pass course: more difficult passages and sentences for translation.
2. **EURIPIDES : Hercules Furens**. Selections, viz., lines 1-106, 140-347, 451-636, 701-754, 816-874 (inclusive).
A short passage of English for translation into Greek iambs.

LATIN.

Pass.

1. **CÆSAR : De Bello Gallico**, Book IV., chaps. 20-38, and Book V. chaps. 1-33 (both inclusive).
OVID : Fasti,

Book I.	543-578.	Ecce boves	....	plangit humum.	
Book II.	83-116.	Quod mare	....	mulcet aras.	
"	491-512.	Est locus	....	paterna dies.	
"	685-720.	Nunc mihi	....	procubuisse pede.	
Book III.	735-760.	Liba deo	....	ora luto.	
"	815-834.	Pallada nunc	....	amica meis.	
Book IV.	417-454.	Exigit ipse	....	nuda manus.	
"	807-852.	Ipse locus	....	adempte, vale.	30
2. Short sentences for translation from English into Latin, the Latin for the more difficult words being supplied. 30
3. A passage or passages from some other Latin work or works for translation at sight. 30
4. Roman history from the foundation of Rome to B.C. 264. 10

Honours.

1. More difficult questions on the Pass course: more difficult passages and sentences for translation.
2. **VIRGIL : Bucolicæ** IV. lines 1-39

	X.	"	9-34.
Georgics ,	IV.	"	387-527.
Æneid , Book,	V.	"	104-248, 286-339, 362-472.
"	VI.	"	440-476, 494-547, 628-702,
			788-900.

A short passage of easy English for translation into Latin elegiacs or hexameters.

ENGLISH.

Percentage
of Marks.
40
25

1. English Composition.
2. Literature.

FERGUSON :	The Burial of King Cormac.
GOLDSMITH :	The Deserted Village.
GRAY :	Ode on a Distant Prospect of Eton College.
SCOTT :	Lochinvar ; Rosabelle.
TENNYSON :	As Through the Land at Eve we Went ; Sweet and Low ; The Splendour Falls ; Tears, Idle Tears ; Home they Brought her Warrior Dead (all from the Princess). The Lady of Shalott.
WORDSWORTH :	The Solitary Reaper.
SCOTT :	The Talisman.

A knowledge of the metre of the prescribed poems will be expected.

3. Outlines of History :

Ireland and Great Britain from A.D. 1485 to A.D. 1660

4. Geography :

(a) Definitions illustrated by topography of the school neighbourhood.

(b) Ireland and Great Britain in detail.

(c) The European Region.

(d) The geography of Eastern France and the bordering regions.

35

Questions on Physical Geography may be set.

5. General private reading should be done by all students from lists of books drawn up by the Board.*

*The selection made by the schools should be intimated to the Office not later than October 1st.

HISTORY AND HISTORICAL GEOGRAPHY.**Honours Course only.**

(a) General History of Ireland and Great Britain, and of Europe in relation to them, A.D. 1485 to A.D. 1660, including Historical Geography relative to this course.

(b) Period for special study ; A.D. 1558 to A.D. 1603, including Historical Geography relative to this course.

(c) The progress of geographical discovery, 1485-1660.

FRENCH.**Pass.**

1. **MALOT :** *Remi et ses Amis*. Chaps. 1-3 (inclusive)
(from *Sans Famille*, Pt. I., chaps. 19-21). 25
- Questions in French to be answered in French. 20
2. A passage or passages from some other French work or works for translation at sight. 20
3. Short sentences, colloquial phrases, and a passage for translation from English into French. 35

Honours.

1. More difficult questions on the Pass course : more difficult passages for translation.
2. Easy free composition.
3. **GIRARDIN :** *La joie fait peur*.

GERMAN.**Pass.**Percentage
of Marks.

- | | |
|--|----|
| 1. EBNER ESCHENBACH : Krambambuli. | 25 |
| Questions in German to be answered in German. | 20 |
| 2. A passage or passages from some other German work or works, as well as a passage in German handwriting, for translation at sight. | 20 |
| 3. Short sentences, colloquial phrases, and a passage for translation from English into German. | 35 |
- Students will not be required to write their answers in German handwriting.

Honours.

1. More difficult questions on the Pass course : more difficult passages for translation.
2. Easy free composition.
3. **GERSTÄCKER : Herrn Mahlhubers Reiseabenteuer.**
(School Text).

IRISH.**Pass.**

- | | |
|--|----|
| 1. O'LEARY : Ár ndóithín araoi (to middle of page 25). | 25 |
| Questions in Irish to be answered in Irish. | 20 |
| 2. A passage or passages from some other Irish work or works for translation at sight. | 20 |
| 3. Short sentences, colloquial phrases, and a passage for translation from English into Irish. | 35 |

Honours.

1. More difficult questions on the Pass course : more difficult passages for translation.
2. Easy free composition.
3. **O'MÁILLE : Naoi ngábhadh an ghiolla dhuibh** (omitting An cúigeadh gahhadh).

ITALIAN.**Pass.**

- | | |
|--|----|
| 1. CAPUANA : Il Drago, and La prima Sigaretta. | 25 |
| Questions in Italian to be answered in Italian. | 20 |
| 2. A passage or passages from some other Italian work or works for translation at sight. | 20 |
| 3. Short sentences, colloquial phrases, and a passage for translation from English into Italian. | 35 |

Honours.

1. More difficult questions on the Pass course : more difficult passages for translation.
2. Easy free composition.
3. **TASSO : Gerusalemme liberata ; Canto I.**

SPANISH.**Pass.**Percentage
of Marks.1. **VALERA : El Pajaro Verde.**

25

Questions in Spanish to be answered in Spanish.

20

2. A passage or passages from some other Spanish work or works for translation at sight.

20

3. Short sentences, colloquial phrases, and a passage for translation from English into Spanish.

35

Honours.

1. More difficult questions on the Pass course : more difficult passages for translation.

2. Easy free composition.

3. **CALDERON : El Magico Prodigioso.****BOOK-KEEPING** (as a separate subject).

Single and double entry ; definitions of the terms used, form and purposes of the various books employed ; recording of business transactions ; posting, balancing, and closing the ledger ; balance sheets.

ARITHMETIC.

The first four rules, simple and compound ; reduction, including metric system ; unitary method in proportion ; vulgar fractions ; decimals ; practice ; simple interest ; square root ; percentages ; averages and mixtures ; calculation of rectangular areas and rectangular volumes. Graphical solutions of problems and interpretation of given graphs may be required.

The use of Algebraic symbols and methods is permitted.

ALGEBRA.**Pass.**

Symbolical expressions and easy equations ; addition, subtraction, multiplication, and division of algebraic integers ; graphical representation of algebraic expressions and easy problems thereon ; resolution into factors ; H.C.F. ; L.C.M. ; algebraic fractions ; simple equations in one unknown quantity, and problems thereon.

Honours.

Pass course. Simple equations involving two unknown quantities ; problems soluble by such equations ; quadratic equations in a single unknown quantity ; problems soluble by such equations ; indices ; surds ; Remainder Theorem and applications.

GEOMETRY.**Pass.**

A knowledge of Geometry approximately equivalent to that contained in Euclid, Book I. ; and Book III., propositions i., iii, xi., xii., xvi., xx, xxi., xxii., and xxxi. Deductions.

Honours.

An amount of knowledge approximately equivalent to that contained in Euclid, Books I., II., and III. Deductions.

SHORTHAND (as a separate subject).

An easy passage will be dictated at the rate of 40 words a minute (ten minutes' test). Any system of shorthand may be used.

DRAWING.**MECHANICAL DRAWING.****PLANE GEOMETRY.**

Candidates will be expected to letter all drawings with some standard type of lettering and to have a good knowledge of the following and of their applications to geometrical pattern drawing, tracery, and mouldings:—Plane and diagonal scales. Proportional division of lines. Construction of circles to given data. Scale of chords. Use of protractor. Construction of triangles and of regular and irregular polygons. Enlarging and reducing of figures. Reduction of polygons to simpler figures of equal area. Simple cases of rectilinear figures described in or about other rectilinear figures. Tangents to circles, circles touching one another.

SOLID GEOMETRY.

Plans, elevations and sections of Cube, Prisms, and Pyramids. Projections of objects based on the foregoing forms should be drawn from measurements and dimensioned sketches made by the pupils.

FREE DRAWING.**OBJECT DRAWING.**

The drawing of groups of two or three objects, or of important objects, involving the construction of two or three of the geometric models in simple positions, above and below eye level.

DESIGN.

Exercises will involve practice in Mechanical and Free Drawing, such as borders, all-over patterns and the filling of geometrical shapes. The geometrical basis of the design must be drawn with instruments. Natural elements, such as shells, feathers, flowers, leaves, etc., will be selected as units for design and suggestions for colour. Limitations will be laid down for each exercise, e.g., in outline; in monochrome of one, two or three tones; or in two or more colours, etc. The leading lines and distribution of masses will, as a rule, be given.

MEMORY DRAWING.

Exercises in Memory Drawing should be of the same standard as those prescribed for Object Drawing, or they may take the form of drawings of ornament. As a rule the time devoted to each exercise should not exceed ten minutes. The memory drawing may at times, with advantage, precede the drawing from the example.

EXPERIMENTAL SCIENCE.**I.—PHYSICAL SCIENCE COURSE.****SECTION I.—PHYSICS.**

1. **MENSURATION.**—Measurement of length. Comparison of the lengths of the circumferences and diameters of circles. Measurement of area of parallelograms, triangles, and circles. Measurement of volume of prisms and cylinders. Comparison of the British and Metric Units of length, area, and volume.

2. MECHANICAL PRELIMINARIES.—The nature of Force. Mass and Weight. Experimental determination of centre of gravity of laminæ of various shapes. The Lever as an instrument for comparing weights. The balance and its use.

3. MEASUREMENT OF DENSITY.—From measurements of volume and weight find the weight of one c.c. of various solids and liquids. Weight of one c.c. of water. Definition of density. Determination of density of liquids by means of (1) burette and balance, and (2) bottle. Beginning with the observation that a brick or large stone appears to lose weight when immersed in water, carry out a series of experiments with solids of various sizes and with different liquids in order to bring out that the apparent loss of weight depends on the volume of the solid and on the density of the liquid used, thus leading up to a statement of the Principle of Archimedes. Use of this principle to determine volume and density of solids and density of liquids. Extension of the principle to substances lighter than water, thus leading to the law of floating bodies. Use of hydrometers of variable immersion in determining densities.

4. BAROMETER.—Determination of the weight of a litre of air under laboratory conditions. Pressure exerted by the atmosphere. Construction of a mercury barometer. Effect of introducing air above the mercury column. Aneroid barometer.

5. BOYLE'S LAW.—Study of the changes in the volume of a mass of gas when the pressure on it is varied.

6. HEAT.—Effect of increase of temperature on volume of given mass of solid, liquid, gas—qualitatively. Expansion a means of determining *hotness* or temperature. The thermometer, and its fixed points. Comparison of Centigrade and Fahrenheit thermometers. Quantitative study of the relation between the volume and temperature of a mass of gas at constant pressure.

SECTION II.—CHEMISTRY.

1. EXAMINATION OF SUBSTANCES.—Chemistry may be introduced by the examination of a few selected substances, such as sand, chalk, nitre, tin, sulphur, sal ammoniac, blue vitriol, alum, washing soda, green vitriol, sugar and wood—

(i) to cultivate the power of observing the properties of substances and the changes which they undergo when heated or treated with water;

(ii) to introduce the pupils to the commoner laboratory processes, e.g., solution, crystallisation, decantation, filtration, evaporation, sublimation, distillation (destructive and otherwise) and the collection of gases;

(iii) to lead pupils to a knowledge of simple methods of investigation, including quantitative determinations.

The information obtained in the course of this work should be amplified and applied by suitable demonstrations.

Determination of solubility.

2. ACTION OF HEAT ON METALS.—Qualitative action of heat on metals in the air. Change of weight. Complete combustion of Magnesium. Action of a suitable metal, such as tin, on a confined volume of air.

3. CONSTITUTION OF AIR.—Burning of phosphorus in an enclosed volume of air. Examination of residual gas. Quantitative determination of the percentage volume of gas removed. Action of heat on red

lead and on mercury calx. Oxygen. Preparation on a larger scale from potassium chlorate. Properties. Experimental determination of the density of Oxygen. Comparison of the properties of oxides; classification.

4. ACIDS, ALKALIS, AND SALTS.—Refer to acid produced when heating green vitriol. Properties of sulphuric acid. Preparation and properties of hydrochloric and nitric acids. Production of caustic soda and calcium hydroxide from the respective metals. Neutralisation. Salts.

5. ACTION OF DILUTE ACIDS ON METALS.—Production and examination of hydrogen. Combustion of hydrogen. Recognition of the product of combustion as water. Reduction of the black oxide of copper by hydrogen.

6. ACTION OF DILUTE ACIDS ON CARBONATES.—Study of the properties and reactions of carbon dioxide. Presence of carbon dioxide in the atmosphere. Synthesis of the gas. Study of chalk—show that the same amount of the same gas is evolved by the action of heat and of acid.

7. CHEMICAL GENERALISATIONS.—A review of the above work will provide opportunities for the illustration of such important generalisations as the constancy of composition of chemical substances and the indestructibility of matter.

II.—DOMESTIC ECONOMY.

HYGIENE AND HOUSEHOLD KNOWLEDGE.

Description and study of the human body—aided by charts—of bones, muscles, nerves, skin. Composition of body.

Respiration.

Circulation of blood.

The treatment of cuts and bruises. Bandages.

Clothing. Why clothes are necessary. The suitability of different garments and the materials of which they are made. The effect of climate and the seasons of the year. Study of the materials and their costs.

Household accounts and expenditure.

Marketing.

Recognition of adulteration in food.

Arrangement of daily and weekly household duties.

Practice in this course should be given in the cleaning of household furniture, wood, wicker, and bamboo. Care of paint, mirrors, glass, and china. Making of simple cleansing and polishing agents. Kinds of brushes and cloths that should be used; their care.

COOKERY.

Food—diet in relation to age, occupation and climate.

Study of a complete diet for a family in the particular station of life in which the pupils may be, having regard to the income available, and the kinds of food procurable. The preparation and serving of complete meals for such a household.

Food values. Study of the foods suitable for children, young girls and adults.

Modes of cutting up meat.

Different modes of preparation of milk, eggs, and vegetables.

More difficult examples of the use of the primary processes of cookery.

Reheating of cold meat and fish. Making of stock and care of stockpot.

Making of beverages.

Oaten and wheaten bread. Batters.

NEEDLEWORK.

Cutting out and making up one or two simple garments suitable for pupil's own wear.

Construction and use of patterns.

Repairing of worn clothing.

Cost and durability of various materials.

MUSIC.

The editions mentioned in the Programme are for purposes of identification only.

(A) COURSE FOR THE PRACTICAL EXAMINATION.

(1) For particular instruments.

PIANO.

EXERCISES :—Schmitt : PREPARATORY EXERCISES FOR PIANO. Nos. 34 to 64.

SCALES :—All the major scales, legato and staccato. All the harmonic minor scales. Hands separate and together. Compass, 2 octaves.

ARPEGGIOS :—All the major and minor common chords in close position. Hands separate and together. Compass, 2 octaves.

STUDIES :—Orlando Morgan. Introductory Studies (Nos. 2 and 9) (Ashdown), or Heller's Studies (Nos. 2 and 8) (Augener).

PIECES :—(a) Little Prelude, No. 9 in F. Bach. (Book I., Grade 2, I.S.M., Lengnick).

(b) "A Highland Story," E. Markham Lee (Anglo-French Music Co., York-place, Baker-street, London).

Or as an alternative :—

(a) Courante in F. Handel (Book 12, Grade 2, I.S.M., Lengnick).

(b) Sonatina (1st movement only). Hubert Bath (Ashdown),

VIOLIN.

SCALES :—Major and melodic minor scales of G, A, B flat, B natural, C, D. Compass, 2 octaves, (a) detached, (b) slurred in eights.

ARPEGGIOS :—Arpeggios of above scales. Compass, 2 octaves, detached.

STUDIES :—Kummer. 43 Easy Studies. Op. 60. Ed. by W. Henley (Nos. 24 and 29). J. Williams.

PIECES :—(a) William Henley. "Solitude." Ricordi.

(b) William Henley. "Berceuse." Ricordi ; or as an alternative :—Moffatt, "A Village Dance." Op. 37, No. 6 (Lengnick).

VIOLONCELLO.

SCALES :—Major scales of D, A, F. Minor scales (harmonic form) of A, D, G. Compass, 2 octaves, (a) detached, (b) slurred in fours.

ARPEGGIOS :—The common chords of the above scales. Compass, 2 octaves, (a) detached, (b) slurred in threes.

STUDIES :—Lee, Op. 126. Book I. Nos. 3, 8, 11, 14, 17 and 22, both parts (Augener, 7767).

PIECES :—(a) "Constancy," H. MacCunn (Boosey & Co.), (b) W. H. Squire, Petits Morceaux, Op. 16, No. 3, "Le Plaisir" (Augener).

HARP.

SCALES :—All the major scales, with hands separate and hands together, one octave apart. Compass, 2 octaves.

ARPEGGIOS :—Arpeggios of major scales, with hands separate and hands together, one octave apart. Compass, 2 octaves.

STUDIES :—Bochsa, *Pupil's Companion*, Book 2 (Ashdown), Nos. 19 and 20.

PIECES :—Alvar, *Romances*, Book 4 (Hutchings and Romer), Nos. 20 and 23.

(2) For all Students.

Reading at Sight :—To play an easy piece.

Ear Test :—From C (middle) or G (2nd line treble) as tonics, to recognise any note of the ascending major scale to the extent of one octave.

(B) COURSE FOR THE EXAMINATION IN THEORY.

Pass.

The Rudiments of Music.

Honours.

The Pass Course, and in addition :—Harmony, up to and including the chord of the Dom. 7th, and the use of Unessential Notes, including the harmonisation of a simple melody in four parts.

COMMERCIAL COURSE.

(A) OUTLINES OF INDUSTRIAL HISTORY.

Honours only.

Industrial History of Ireland and England from 1250 to 1603, covering the following :—

Internal trade and trade between Ireland, England, and the Continent. Guilds. Results of the Black Death. Migration of artisans. Staple towns. Tillage and sheep-farming. Corn growing. 'Labourers' wages. Poor relief. Convertible husbandry. Enclosures. Economic results of the dissolution of the monasteries. Patents and monopolies. Formation of companies. Restoration of the currency. Development of shipping.

(A) COMMERCIAL GEOGRAPHY.

Pass.

The position, configuration and climate of the different parts of the British Islands and their influence on :—

1. The distribution of population and of the employments of the people.
2. The various productions, mineral, vegetable, and animal.
3. Manufactures, their localisation and economic effects.
4. Imports and exports : their nature, origin and destination.
5. Trade routes : their direction and most important freights.
The linking up of the principal ports with manufacturing centres and with each other.
6. The food supply.
7. Communication by railroad and canal.

Honours.

A more advanced knowledge of the subjects of the Pass Course.

(B) BOOK-KEEPING.**Pass.**

Single and double entry; definitions of the terms used, form and purposes of the various books employed; recording of business transactions; posting, balancing, and closing the ledger; balance sheets.

Honours.

More difficult questions on the Pass Course.

(C) PRÉCIS AND ELEMENTARY BUSINESS METHODS.**Précis Writing.**

Précis Writing forms part of the Course.

Elementary Business Methods.**Pass.**

Inward and outward Correspondence. Postal arrangements. Telegraphs and telephones. Business letter writing. Office books and business forms. (As dealt with in Pitman's Business Training, or some similar Manual.)

Honours

The Pass course, and in addition—Means of transit. Railways and canals. Forwarding goods by rail. Channels of commerce (routes, etc.). Custom and Excise duties. Imports and exports. The world's currencies. Banks and banking. (As dealt with in Pitman's Business Training, or some similar Manual).

(D) SHORTHAND.

An easy passage will be dictated at the rate of 40 words a minute (ten minutes' test). Any system of shorthand may be used.

MANUAL INSTRUCTION AND PRACTICAL MATHEMATICS.**PRACTICAL MATHEMATICS.**

Measurement of lines. Circumference of a circle. The evaluation of π . Construction and use of scales. Construction and use of vernier. Drawing to scale.

Determination of rule for finding the area of a rectangle by drawing and by cutting into squares. Area of a parallelogram—conversion into a rectangle by paper cutting. Area of a triangle. Measurement of area of field by Pacing and by Chaining. Use of squared paper in determining the area of a circle. Rule for calculating areas of circles. Other examples of use of paper cutting in exhibiting the equality of areas.

Similar figures. Enlarging and reducing plane figures by radial projection and by means of scales. Division of a circle into degrees. Measurement of angles. Use of protractor. Conversion of polygons into triangles, parallelograms and squares of equal area.

Meaning of the development of surface of a solid, development of surface of cylinder, pyramid and cone, by covering with paper and by drawing.

Units of volume. Determination of the rule for finding the volume of a rectangular solid. Extension of the rule to regular prisms. Volume of cylinder and cone.

Meaning of loci. Simple examples such as locus of a point at a constant distance from another, point equidistant from two other points, point at constant distance from a line, etc. Intersection of loci. Use in the solution of simple problems. Construction of ellipse, using pins and thread and also geometrically.

Drawing graphs from tabulated values. Particular attention to the family of graphs of the form $y=mx+c$. Significance of the constants m and c . Determination of the equation of straight line graph from its "slope" and "intercept."

Plans and elevations of geometrical solids, rectangular prism and pyramid.

MANUAL INSTRUCTION.

The principal points aimed at in this course are:—

1. The careful and accurate use of tools.
2. The making and reading of working drawings.
3. Accuracy in workmanship.

A drawing of each exercise, full size or to scale, must be made by the pupil before any bench work in connection therewith is attempted. Pupils should be required to work from their own drawings and not from a diagram or model.

The following tool exercises are those for the year's work:

FIRST YEAR.

- Edge planing.
- Face planing.
- Gauging.
- Squaring.
- Sawing at 90° across and along the grain
- Sawing at 60° and 45° .
- Paring, perpendicular and oblique.
- Boring.
- Bevel planing.
- Cylindrical modelling.
- Nailing.

It is not desirable that much constructive work should be attempted, and the models as a rule should be evolved from a single piece of wood; but some simple joint exercises in halving, notching, and housing, such as would be required in the construction of a T, a cross, and a simple rectangular frame, should be practised.

Middle Grade.

GREEK.

Pass.

Percentage
of Marks.

- | | |
|--|----|
| 1. EURIPIDES: <i>Hercules Furens</i> . Selections, viz., lines 1-106, 140-347 451-636, 701-754, 816-874 (inclusive); | |
| THUCYDIDES: Book VII., Marchant's selections from (Athenian Disaster in Sicily.) | 30 |
| 2. Short passages from other Greek works for translation at sight. | 30 |
| 3. An English passage or passages for translation into Greek. | 30 |
| 4. Outlines of Greek history, from 479 B.C. to 404 B.C. | 10 |

Honours.Percentage
of Marks.

- | | |
|--|----|
| 1. Passages from Greek authors for translation into English. | 50 |
| 2. A passage of English prose for translation into Greek. | 40 |
| 3. Greek history, from 479 to 404 B.C., and outlines of Greek Literature within that period. | 10 |

A passage of English verse for translation into Greek iambs.

LATIN.**Pass.**

- | | | |
|-------------------------------|-----------|------------------------------|
| 1. VIRGIL : <i>Bucolics</i> , | IV. lines | 1-39. |
| " " | X. | " 9-34. |
| <i>Georgics</i> , | IV. | " 387-527. |
| <i>Æneid</i> , Book | V. | " 104-248, 286-339, 362-472, |
| " " | VI. | " 440-476, 494-547, 628-702, |
| | | 788-900 |

CICERO : Second Philippic.

30

- | | |
|--|----|
| 2. Short passages from other Latin works for translation at sight. | 30 |
| 3. An English passage or passages for translation into Latin. | 30 |
| 4. Outlines of Roman history, from 264 B.C. to 91 B.C. | 10 |

Honours.

- | | |
|--|----|
| 1. Passages from Latin authors for translation into English. | 50 |
| 2. A passage of English prose for translation into Latin. | 40 |
| 3. Outlines of Roman history from 264 B.C. to 91 B.C. | 10 |

A passage of English verse for translation into Latin elegiacs or hexameters.

ENGLISH.

- | | |
|-------------------------|----|
| 1. English Composition. | 40 |
| 2. Literature. | 25 |

SHAKESPEARE : Henry IV., Part I.**MILTON :** II *Penseroso*.**SHELLEY :** Ode to the West Wind ; The Cloud ; The Skylark ; Arethusa.**KEATS :** Ode to a Nightingale ; Ode to Autumn.**THACKERAY :** English Humourists :—Addison, Steele and Goldsmith.

ADDISON : The following Essays :—Sir Roger de Coverley at Home ; Sir Roger and Will Wimble ; Witches ; Sir Roger and the Gipsies ; Sir Roger in Town ; Sir Roger and the Spectator Visit Westminster Abbey ; Party Patches ; The Royal Exchange ; The Man of the Town ; Country Manners ; Omens ; Thoughts in Westminster Abbey.

- | | |
|--|------|
| 3. Outlines of History :
Europe, with special reference to Ireland, Great Britain,
and France, A.D. 1660 to A.D. 1748. | } 35 |
| 4. Geography :
(a) General Geography of Asia and Africa.
(b) The British Empire in Asia and Africa, in more detail.
(c) The Geography of North Italy and the bordering
regions, and of the Balkan Peninsula. | |

Questions on Physical Geography may be asked.

5. General private reading should be done by all students from lists of books drawn up by the Board.*

* The selection made by the school should be intimated to the Office not later than October 1st.

HISTORY AND HISTORICAL GEOGRAPHY.**Honours Course only.**

In addition to a general knowledge of the Junior Grade Course :—

(a) General history of Europe, with special reference to Ireland, Great Britain, and France, A.D. 1660 to A.D. 1748, including Historical Geography relative to this course.

(b) Period for special study, A.D. 1660 to A.D. 1702, including Historical Geography relative to this course.

(c) The progress of geographical discovery and colonisation A.D. 1660 to A.D. 1748.

FRENCH.Percentage
of Marks.**Pass.**

- | | |
|--|----|
| 1. DAUDET : <i>La belle Nivernaise</i> (School edition).
GIRARDIN : <i>La joie fait peur.</i> | 25 |
| 2. A passage or passages from some other French work or works for translation at sight. | 25 |
| 3. Easy free composition. | 25 |
| 4. Colloquial phrases and a passage of English for translation into French. | 25 |

Honours.

- | | |
|---|----|
| 1. Passages from French authors for translation into English. | 40 |
| 2. (a) Colloquial phrases and a passage of English for translation into French. | 30 |
| (b) Free composition in French. | 30 |

GERMAN.**Pass.**

- | | |
|--|----|
| 1. GERSTÄCKER : <i>Herrn Mählhubers Reiseabenteuer.</i>
SCHILLER : <i>Poems, viz. : Ritter Toggenburg, Der Ring des Polycrates, Die Kraniche des Ibycus, Die Bürgschaft, Der Graf von Habsburg, Der Handschuh, Der Kampf mit dem Drachen.</i> | 25 |
| 2. A passage or passages from some other German work or works for translation at sight. | 25 |
| 3. Easy free composition. | 25 |
| 4. Colloquial phrases and a passage of English for translation into German. | 25 |

Students will not be required to write their answers in German handwriting.

Honours.

- | | |
|---|----|
| 1. Passages from German authors for translation into English. | 40 |
| 2. (a) Colloquial phrases and a passage of English for translation into German. | 30 |
| (b) Free composition in German. | 30 |

IRISH.**Pass.**

- | | |
|---|----|
| O'MÁILLE : <i>Naoi ngábhadh an ghiolla dhuibh</i> (omitting an cúigeadh gábhadh). | |
| O'LEARY : <i>An Cleasaidhe</i> (up to page 37). | 25 |

2. A passage or passages from some other Irish work or works for translation at sight.	25
3. Easy free composition.	25
4. Colloquial phrases and a passage of English for translation into Irish.	25
Honours.	
1. Passages from Irish works for translation into English.	40
2. (a) Colloquial phrases and a passage of English for translation into Irish.	30
(b) Free composition in Irish.	30

ITALIAN.**Pass.**

1. CARCANO : Memorie d'un Fanciullo : Il Capellano della Rovella.	
TASSO : Gerusalemme liberata, Canto I.	25
2. A passage or passages from some other Italian work or works for translation at sight.	25
3. Easy free composition.	25
4. Colloquial phrases and a passage of English for translation into Italian.	25
Honours.	
1. Passages from Italian authors for translation into English.	40
2. (a) Colloquial phrases and a passage of English for translation into Italian.	30
(b) Free composition in Italian.	30

SPANISH.**Pass.**

1. CALDERON : El Magico Prodigioso.	
TAMAYO Y BAUS : Lo Positivo.	25
2. A passage or passages from some other Spanish work or works for translation at sight.	25
3. Easy free composition.	25
4. Colloquial phrases and a passage of English for translation into Spanish.	25
Honours.	
1. Passages from Spanish authors for translation into English.	40
2. (a) Colloquial phrases and a passage of English for translation into Spanish.	30
(b) Free composition in Spanish.	30

BOOK-KEEPING (as a separate subject.)

Junior Grade course, and, in addition, a knowledge of the following subjects:—Stocktaking; treatment of and provision for bad and doubtful debts; correction of errors; adjustment entries; partnership transactions; dealings in stocks and shares; transactions in connection with exports and imports; bills and entries in regard thereto.

ARITHMETIC.

Junior Grade course, and in addition:—

Compound interest; profit and loss; the use of logarithms. Books of tables (to four places) will be supplied at the examination.

Graphical solutions of problems and interpretation of given graphs may be required.

The use of algebraic symbols and methods is permitted.

ALGEBRA.**Pass.**

Junior Grade Pass Course, and in addition :—

Simple equations involving two or more unknown quantities and problems thereon ; quadratic equations in a single unknown quantity and easy problems soluble by such equations ; elementary theory of indices and logarithms.

Honours.

Pass course : Junior Grade Honour course ; simultaneous equations in two variables involving solution of simple or quadratic equations ; theory of quadratic equations ; imaginary quantities ; arithmetical and geometrical progressions ; logarithms ; partial fractions.

GEOMETRY.**Pass.**

An amount of geometrical knowledge approximately equivalent to that contained in Euclid, Books I., II and III. Deductions.

Honours.

An amount of knowledge will be expected approximately equivalent to that contained in Euclid, Books I., II., III., IV., and VI., and the definitions of Book V. Deductions.

Students may be required to give algebraical proofs of those properties of proportional magnitudes on which the establishment of the propositions of Euclid, Book VI., depends.

TRIGONOMETRY.**Pass.**

General definitions of the trigonometrical functions ; elementary identities ; determination of the numerical values of the trigonometrical functions of 30° and 45° and their multiples ; solution of right-angled triangles ; rule of sines, formula for the cosine of an angle of a triangle in terms of the sides, and easy questions on the solution of triangles dependent thereon ; sine and cosine of the sum or difference of two angles and easy applications ; use of logarithmic and trigonometrical tables. Books of tables (to four places) will be supplied at the examination. Questions may be set involving a knowledge of the Middle Grade pass courses in the other pure mathematical subjects.

Honours.

Trigonometry, up to and including the solution of plane triangles. Questions may be set involving the use of logarithmic and trigonometrical tables. Books of tables (to four places) will be supplied at the examinations. Questions may be set involving a knowledge of the Middle Grade honour courses in the other pure mathematical subjects.

APPLIED MATHEMATICS.

In some simple questions candidates may be required to use graphical methods. Candidates should bring graduated rulers and protractors.

Pass.

Speed. Velocities—average, true, relative. Composition and resolution of velocities (graphically and by calculation). Change of velocity (direction and magnitude). Average rate of change of velocity and of momentum. Acceleration (composition and resolution). Uniform acceleration. Newton's Laws of Motion. Composition and resolution of forces (graphically and by calculation). Gravity. Equilibrium of forces. Rectangular resolution of forces. Inclined plane.

Honours.

Pass course, and in addition :—

Problems on projectiles without reference to the form of the actual path. Motion of bodies connected by a string. Motion on inclined planes. Conservation of Momentum. Direct collision of inelastic bodies.

Moments. Elementary notions of couples. Parallel forces. Centre of gravity. Conditions of equilibrium of a system of plane forces. Lever, pulleys.

SHORTHAND (as a separate subject).

A passage will be dictated at the rate of 60 words a minute (ten minutes' test). Any system of shorthand may be used.

DRAWING.**MECHANICAL DRAWING.****PLANE GEOMETRY.**

Candidates will be expected to letter all drawings with some standard type of lettering and to have a good knowledge of the work of the Junior Grade Syllabus.

Construction of ellipse and parabola. Tangents and normals to an ellipse. Applications to geometrical pattern drawing, tracery and mouldings.

SOLID GEOMETRY.

Plans, elevations, and sections of standard geometrical models. True shape of sections. Development of surfaces. Projections of machine and building details, from measurements and dimensioned sketches made by the pupils.

FREE DRAWING.**OBJECT DRAWING.**

The standard expected in this Grade will be higher than that of the Junior Grade and the drawings will be from objects of a more complex type, such as a box with an open lid, an easel, a step-ladder, a desk, a waste paper basket, an open umbrella, a basin and jug, etc. The exercises will be executed in point with such rendering of light and shade as will be expressive of their form.

DESIGN.

The exercises will be based on natural forms, such as plants, fruit, seaweed, birds, fishes, butterflies, or on decorative ornament in which such forms have been used. In this Grade candidates will be expected to make their own preliminary sketches of leading lines and masses for their designs. The exercises will be of a more difficult character than those of the Junior Grade.

MEMORY DRAWING.

Exercises in Memory Drawing should be of the same standard as those prescribed for Object Drawing, and should include also some of the natural forms used in Design.

EXPERIMENTAL SCIENCE.**I.—PHYSICAL SCIENCE COURSE.****SECTION I.—PHYSICS.**

1 MECHANICS.—Force and force measurement. Experiments on the extension of a spiral spring. Distinction between weight and mass. The principle of moments. Parallelogram and triangle of forces. Application of the triangle of forces to cases of equilibrium on an inclined plane. Composition of parallel forces. Further study of

Centre of Gravity. Definition of "work." Experiments with levers, pulleys and inclined planes to bring out the relation between the work done by the "effort" and the work done against the "resistance." Work done against friction. Investigation of the laws of friction.

2. **HEAT.**—Conduction, convection and radiation. Co-efficients of expansion. Laws connecting the volume, temperature, and pressure of a fixed mass of gas. Vapour pressure. Influence of pressure on boiling points. Specific Heat. Experiments showing the existence of Latent Heat. Latent Heat of water and steam. Freezing mixtures. Thermal properties of water and their influence on climate.

3. **LIGHT.**—Consequences of the linear propagation of light. Formation of shadows. Law of inverse squares. Laws of reflection. Position of image formed by plane mirror. Reflection by concave spherical surfaces. Images formed by concave spherical mirrors. Determination of radius of curvature; principal focus; nature, position and size of image. Refraction at a plane surface. Relation between sines of angles of incidence and refraction. Determination of refractive indices of glass and water by deviation and by measurement of the real and apparent thickness of the medium. Total reflection and the critical angle.

SECTION II.—CHEMISTRY.

1.—**EQUIVALENTS.**—Meaning of the term "equivalent." Experimental determination of equivalents in a few simple cases.

2. **HYDROCHLORIC ACID.**—Experiments to show the presence of hydrogen in hydrochloric acid gas. Action of the gas on oxides and peroxides. Preparation and examination of chlorine. Experiments to show that hydrochloric acid gas contains half its volume of hydrogen. Density of hydrochloric acid gas and chlorine. Composition of hydrochloric acid by weight and volume. Equivalent of chlorine. Comparison of weights of chlorine which combine (a) with 1 gram of hydrogen, (b) with the weight of sodium which displaces 1 gram of hydrogen.

3. **NITRIC ACID AND OXIDES OF NITROGEN.**—Action of nitric acid on metals. Oxidising action of nitric acid. Experiments to show the presence of hydrogen, nitrogen and oxygen in the acid. Preparation and study of nitric oxide and nitrous oxide. Analysis of the gases. Densities. Composition by volume. Preparation and properties of nitrogen peroxide. The importance of nitrates in agriculture and in the manufacture of explosives.

4. **AMMONIA.**—Sources of ammonia. Preparation and properties. Action of the gas on copper oxide. Qualitative composition. Methods of fixation of atmospheric nitrogen.

5. **SULPHURIC ACID AND SULPHUR COMPOUNDS.**—Action of strong sulphuric acid on metals. Preparation, properties and composition of sulphur dioxide. Oxidation to sulphur trioxide. Demonstration of the methods of manufacture of sulphuric acid. Preparation, properties and composition of sulphuretted hydrogen. Use in detection and separation of metals in solution.

II—NATURAL SCIENCE COURSE.

SECTION I.—BOTANY.

AUTUMN STUDIES: A simple flowering plant—Buttercup, Crucifer, or other type. Examination of other plants and their comparison with the type first selected. Forms of plants and their organs in relation to environment and functions. The habits of plants. Study of Annuals, Biennials, and Perennials, and their means of providing for the individual and the race.

Trees, autumn tints in foliage, and leaf-fall. Dispersal of fruits and seeds. Distinction between stems and roots. Modified stems—bulbs, corms, rhizomes, and tubers. Planting of these forms for future study. Functions of the vegetative organs of plants, illustrated by experiments in absorption and transference of root-sap, in root-pressure, transpiration, respiration, and assimilation. Observations and material for a "Nature Calendar."

WINTER STUDIES: The twigs of Sycamore and Elm (as types). Protection against cold and moisture. Age of trees by bud-scale scars and by annual rings in cut twigs, trunks and logs. Periodic study of modified stems planted in autumn. Discovery of stored food materials in organs of plants. Comparison between winter buds and underground structures such as bulbs and corms. Recognition of flower-buds and vegetative buds in fruit and other trees. Distinction between evergreen and deciduous trees.

SPRING STUDIES: Continued observation and examination of bulbs and corms which were planted in autumn. Study of Crocus, Daffodil and Tulip. Natural and artificial pollination. Bees and their work in relation to flowers. Study of Pollen. Fertilisation. Further observation of the twigs of Sycamore and Elm as their buds burst into leaf and flower. The spring fall of stipules and other scales from trees. The evolution of a shoot from a winter bud.

Examination of seeds. Germination of pea and bean, mustard and radish, wheat and maize. Comparisons between seed and winter-bud, and between seedlings and shoots. Experiments to illustrate the fundamental conditions and phenomena of germination.

SUMMER STUDIES: Further study of the habits of plants and their production of roots, stems and leaves. The grand periods of growth, flowering and fruiting. Study of flowering plants which are types of the great sub-divisions of the plants of the field and garden.

SECTION II.—HYGIENE.

I. GENERAL, EXTERNAL SURVEY OF THE BODY.—Recognition of head, trunk, and limbs, and their external divisions and features.

II. THE SKELETON.—The bones and articulations of the complete human skeleton, and recognition of the principal long bones. Study of fresh bones of ox and sheep cut in sections to show structure. Section of a tooth. Composition of bone.

III. MECHANISM OF MOVEMENT.—Muscular system in relation to the skeleton. The individual muscle, its attachment to bones and its leverage action. Functions of tendons. General structure of joints, such as the shoulder, elbow, knee and hip joints. Nervous control: recognition of the brain, spinal cord, and nerves in the rabbit. Fractures, dislocations, and sprains. Spinal curvature. Exercise and fatigue, rest and sleep.

IV. GENERAL INTERNAL SURVEY OF BODY.—The situation, shape, and general functions of the thoracic and abdominal organs.

V. BLOOD AND ITS CIRCULATION.—Structure of the heart and recognition of the main vessels issuing from it; outline of the pulmonary and systemic circulations; microscopic structure of blood: the pulse and blood pressure. Haemorrhage; treatment of wounds; use of antiseptics.

VI. RESPIRATION.—Physical and chemical properties of air; diffusion of gases; qualitative examination of expired air. Structure of

the organs of respiration ; mechanism of respiration ; rate of respiration ; lung capacity. Respiration considered in relation to the oxidation of the tissues as the source of heat and energy in the body ; the carriage of oxygen and carbon dioxide by the blood. Air in relation to health. The chief impurities in the air and the natural means of purifying the atmosphere ; the effects of clothing on freedom of respiration ; the importance of breathing through the nose ; active exercise and deep breathing. Fainting and its treatment ; suffocation by vitiated atmospheres ; drowning and artificial respiration the injurious effects of smoking on the part of the young.

VII. DIGESTION.—The position, form and structure of the organs of digestion. Tests for, and simple properties of, the following substances as types of carbohydrates, fats, and proteins :—starch, cane and grape sugars, butter and egg-white. The study of the changes produced in above substances by the action of the various digestive ferments. The general description of digestion supplemented by special reference to the teeth, the peristaltic movements of the canal, the absorption of food stuffs, and intestinal putrefaction. Food in relation to health ; food stuffs essential to life ; dietaries and their nutritive values ; the effect of cooking foods. Personal Hygiene ; the care of the teeth ; regularity in meals ; attention to the daily evacuation of the alimentary canal ; constipation.

VIII. WATER.—Sources, qualities, and uses ; rain, spring and river water ; substances in solution, beneficial and injurious ; hardness, temporary and permanent ; use of leaden pipes ; effects of filtration and boiling.

IX. EXCRETION.—General review of the gaseous, liquid, and solid waste products of the body, and the importance of their elimination. The structure and functions of the kidney. The structure of the skin ; the skin as a regulator of body temperature. Personal Hygiene ; cleanliness ; the bath ; choice of suitable clothing.

X. FIRST AID.—Revision of work already carried out. Poultices, fomentations and plasters ; burns and scalds ; antiseptics and disinfectants.

III.—DOMESTIC ECONOMY.

HYGIENE.

Water as a solvent. Varieties of water. Properties of good drinking water. Hardness. "Furring" of cooking utensils. Action of water on lead pipes. Organic matter and bacteria in water. Filters.

Composition of air ; a study of carbonic acid gas ; combustion ; respiration. Dust and microbes in air. Ventilation—natural and artificial.

Temperature of body and surrounding air ; necessity of heating ; conditions of good draught ; artificial heating ; convection and radiation. Coal, coke, gas, oil and peat fires. Loss of heat in chimneys. Slacking fires. Economic and wasteful grates.

Light ; effect of sunlight on plants—the release of oxygen, disinfecting power. Comparison of candle, lamp, gas and electric light as regards steadiness and brilliancy. Effect on the atmosphere. Care of lights and fittings.

Study of human body from charts ; bones, muscles, nerves, blood skin. Excretions from the body.

Nature of carbohydrates, proteins and fats

Digestion.—Description of digestive organs. Mastication. Circulation of the blood; heart, arteries, veins. Work of blood circulation.

Skin and glands; functions. Necessity for washing; soap. Effect of damp clothes. Comparison of different kinds of clothing materials.

Respiration; description of the lungs. The mechanism of breathing

COOKERY.

A consideration of a diet of uncooked food will at once show the advantages of cooking in regard to mastication, to the mixing of foods, to palatability, and to the economy of hot food.

Cooking.—The application of heat to food; different modes of cooking; the advantages and disadvantages of cooking.

Boiling.—Difference between the methods of cooking fresh and salt meat; hard and soft water in cooking; coagulation of albumen; extraction of gelatine from bones; use of gelatine; determination of the economic advantage of boiling as compared with roasting or frying; proper temperature for boiling fish; poaching of eggs in water and vinegar; effect of rubbing lemon on fish; action of salt on raw beef; boiling of salt water.

Stewing.—Its principle; aim; temperature; economy. Bainmarie (ordinary stone jar in pot of boiling water); principle, use, economic advantage.

Frying.—Temperature necessary in frying; frying of bread in warm fat and hot fat; simple means of recognising the best temperature for frying. Advantages of coating foods for frying. Economic advantages and disadvantages of frying.

Roasting.—Heating by direct radiation; kind of fire needed; advantages and disadvantages from economic point of view. Temperature; effect of slow fire and quick fire on raw meat.

Baking.—Hot air chamber; effect on food; advantages and disadvantages of non-escape of air. Ventilation of ovens. Principle of double baking pan—economic advantage. Baking powder; its composition and use. Separation of starch from gluten in wheat. Gluten; its properties in bread making. Correct temperature of oven. Yeast in bread making. Examination by microscope; proper temperature for fermentation; causes of heaviness in bread. Value of beating white of eggs; of mixing butter and flour thoroughly; of kneading yeast bread; of not kneading ordinary paste for tarts.

Grilling meat over a slow fire or quick fire; economic advantages and disadvantages.

Steaming.—Advantages from the point of view of digestion and economy.

Food values.—Nutritive properties of meats. Modes of cutting up meat, studied from charts.

Eggs—weight of good eggs; test in salt water; action of butter rubbed on fresh eggs.

Milk—constituents; action of boiling; sterilizing.

Potatoes—appearance of starch granules under the microscope. Distribution of water and starch. Difference between new and old potatoes. Examination of the water in which potatoes or other vegetables have been boiled. Storage of potatoes.

Cereals—food values of ordinary kinds.

Green, root and pulse vegetables ; their preparation and dietetic value.

Complete and inexpensive menus should be made up of reasonable and cheap foods ; the quantities and cost for a given number of persons should be made out ; the cost of materials in each dish should be considered, as also its dietetic value.

HOUSEHOLD KNOWLEDGE.

Principal stains on kitchen utensils. Grease ; insolubility in water. Soap ; saponification of fats. Soluble and insoluble soaps. Soda, ammonia, and chalk.

Action of acids on zinc, copper and brass ; danger in using these metals for cooking ; use of vinegar in cleaning. Stains on silver ; stain from eggs, how removed. Mechanical action in cleaning, of whitening, emery powder, sand paper, sand and ashes. Blacklead and turpentine ; their action in cleaning range.

Action of heat on different metals, lead, tin, iron, etc., and on stone ware. Value of utensils.

Choice and selection of clothes ; good taste in clothing ; fitness, colour and fashion. Examination of linen and cotton under the microscope. Economic values of linen and cotton. Comparative facility of removing stains. Comparison of wool and silk. Shoddy ; cheapness and durability. Economic colours. Economic form of clothes and best wearing textures.

Care of clothes—underclothing, linen not drawn together before washing is torn. Outer clothes ; brushing ; removal of mud and grease stains. Solvent power of ammonia, turpentine, benzine, naphtha, and alcohol. Reason for rubbing stain with flannel ; and reason for absorbent being under stain where rubbed.

Practice in removing stains from clothes.

Advantages and disadvantages of a small quantity, or of a large quantity, of linen and clothes.

NEEDLEWORK.

Samples of stitches.—(1) All operations of plain sewing, such as hemming, felling, running, etc. (2) Two patches. (3) Buttonholes, buttons. Calico or linen undressed and not too fine.

Darning on linen or woollen stuff and stockings.

Lessons in use and care of sewing-machine.

Measuring and Pattern Drawing.—The system of pattern drawing employed should be one that depends on the ruler, tape-measure and chalk alone. The pattern should be drawn by the teacher full size on board, and simultaneously by pupils, full size on pattern paper. Patterns cut out in paper and material. Patterns reduced to scale in exercise books, and explanation of figures written out on opposite page by pupils.

The following patterns should be worked in class :—Chemise, knickers, camisole, and plain blouse.

Making.—One garment at least, hand-sewn. "Plain" means worked with ordinary plain stitches and not fancy lingerie ones. Articles can be simply trimmed, if desired.

Blouse without lining.

Cost.—List of materials used ; their lengths or quantity, and prices, should form a necessary part of the work.

MUSIC.

The editions mentioned in this Programme are for purposes of identification only.

(A) COURSE FOR THE PRACTICAL EXAMINATION.

(1) For particular instruments.

PIANO.

EXERCISES:—Schmitt: PREPARATORY EXERCISES FOR PIANO, Nos. 120 to 160.

SCALES:—All the major and harmonic minor scales, legato. Compass, 3 octaves. All the major scales in contrary motion, legato. Compass, 2 octaves. All the major scales, staccato. Compass, 2 octaves.

ARPEGGIOS:—All the major and minor common chords in extended position. Compass, 3 octaves.

STUDIES:—Heller, Op. 47, Nos. 1 and 8;

or Franklin Taylor. Progressive Studies. Book II., Nos. 3 and 5. (Novello).

PIECES:—(a) Bach's Invention in F, High School Ed., Book I., No. 8 Inventions. (J. Williams). (b) Pastorale in A, Sterndale Bennett; or as an alternative:—

(a) Toccata in A, Paradies.

(b) Rustic Dance. Mackenzie (Augener). (Also Book 14, Grade 3, I.S.M., Lengnick).

VIOLIN.

SCALES:—All major, harmonic, or melodic minor scales. Compass, 2 octaves, (a) detached, (b) slurred in eights.

ARPEGGIOS:—Arpeggios of major and minor common chords. Compass, 2 octaves, (a) detached, (b) slurred in threes.

STUDIES:—Any two studies from Mazas, Studies, Book I., Op. 36.

PIECES:—Dance, Melodies. Nos. 10 and 12. Gallet (Novello); or as an alternative:—(a) "Une petite Coquette." Beazley. (Lengnick)

(b) Valse Bohémienne (No. 1 of 4 characteristic Waltzes), (Novello).

VIOLONCELLO.

SCALES:—Major scales of D, A, F, B flat. Minor scales (harmonic form) of A, G, C, E. Compass, 2 octaves, (a) detached, (b) slurred in fours.

ARPEGGIOS:—The common chords of the above scales. Compass, 2 octaves, (a) detached, (b) slurred in threes.

STUDIES:—Squire "Easy Exercises, Nos. 8 and 11." (Augener 7780).

PIECES:—(a) Trowell "Berceuse." Op. 20. No. 1. (Schott).

(b) F. Bridge. "Cradle Song." (Goodwin and Tabb); T. F. Dunhill, "Bourrée." Op. 33. No. 2. (Stainer and Bell).

HARP.

SCALES:—Major and harmonic minor scales, with hands separate and hands together, one octave apart. Compass, 3 octaves.

ARPEGGIOS:—Arpeggios of major and minor scales, with hands separate and hands together, one octave apart. Compass, 3 octaves.

STUDIES:—Bochsa, *Pupil's Companion*, Book 3 (Ashdown), Nos. 26 and 28.

PIECES:—(a) John Thomas, *The Tear* (Hutchings and Romer). (b) *Una furtiva lagrima*, from *L'Elisir D'Amore*, arranged by John Thomas (Hutchings and Romer).

(2) For all Students.

Reading at Sight :—An easy piece or a song accompaniment (the latter for pianoforte candidates only).

Ear Test :—To recognise any note of the chromatic scale, with middle C as tonic, within the compass of an octave above or below.

(B) COURSE FOR THE EXAMINATION IN THEORY.

Pass.

Harmony :—A knowledge of triads in their relation to key. Normal 8-bar sentence. Cadences. Chord progressions: In addition, the laws of part-writing. Inversion of triads. Figuring for triads and their inversions.

Honours.

Harmony :—Up to the end of dominant fundamental harmony, including elementary modulations, suspensions, etc. Harmonisation of easy melodies, introducing Modulation.

MANUAL INSTRUCTION AND PRACTICAL MATHEMATICS.

PRACTICAL MATHEMATICS.

Use of slide rule.

Determination of areas of irregular figures by mid-ordinate rule and by Simpson's rule.

Volume of sphere and of irregular solids. Principle and use of spherometer. Calculation of weight from volume and density.

Tangents. Problems involving a knowledge of tangents and loci. More difficult examples of loci—cycloid, epicycloid, and hypocycloid.

Plan and elevation of cylinder and cone. Plan, elevation and true form of sections of prisms, pyramids, cylinders, and cones.

Families of graphs of the form $y=mx^2+c$, $y=-mx^2+c$, and $xy=c$ and their interpretation.

MANUAL INSTRUCTION.

In this course it is expected that pupils will acquire (1) greater accuracy in the use of tools than in the Junior Grade, and (2) a higher standard of accuracy in workmanship. They should also be made thoroughly familiar with the meaning of drawings in plan and elevation, and with conventional isometric drawings, and should be required to produce drawings to scale of each exercise before attempting the woodwork.

In addition to more difficult exercises in the operations set out for the first year, the following operations are required :—

Chamfering with the chisel.

Stop chamfering.

Shooting edges to various angles.

Curve or wave sawing.

Modelling with spokeshave.

Modelling with the gouge.

Glueing.

In this year constructive work should form an important part of the scheme, and models should be constructed embodying the joints already learnt. In addition, more intricate joints, such as the mortice and tenon, bridle, and dovetail joints should be practised.

By the end of the course pupils should be able to grind and sharpen the more common tools.

COMMERCIAL COURSE.**(A) INDUSTRIAL HISTORY AND COMMERCIAL GEOGRAPHY.****INDUSTRIAL HISTORY.****Pass.**

Industrial History of Ireland and England from 1250 to 1760, covering the following :—

Trade between England, Ireland and the Continent. Guilds. Livery companies. Results of the Black Death. Migration of artisans to England. Advantages of commercial intercourse. Staple towns. Tillage and sheep-farming. Corn growing. Labourers' wages. Poor relief. Convertible husbandry. Enclosures. Economic results of the dissolution of monasteries. Patents and monopolies. Formation of companies. Development of shipping. Restoration of the currency in Elizabeth's reign. Navigation Acts, effect on Ireland and England. The Huguenot immigrants. Currency in William III.'s reign. The foundation of the Bank of England. National Debt. The Methuen Treaty. Assiento Treaty and the slave trade. South Sea Bubble. Restrictions on Irish Trade. Irish linen and woollen trades. Restrictions on export of cattle. Effect on Ireland of the Corn Bounty Act (1689). Effect on the population of increase of ranching in Ireland after the Restoration. The currency question in Ireland in the first half of the 18th century. Woods' halfpence.

Honours.

More difficult questions on the Pass course.

COMMERCIAL GEOGRAPHY.**Pass.**

In addition to the Course for the Junior Grade, the position, configuration, and climate of the different parts of Europe and their influence on :—

1. The distribution of population and of the employments of the people.
2. The various productions, mineral, vegetable, and animal.
3. Manufactures, their localisation and economic effects.
4. Imports and exports : their nature, origin, and destination.
5. Trade routes : their direction and most important freights.
The linking up of the principal ports with manufacturing centres and with each other.
6. The food supply.
7. Communication by railroad and canal.

Honours.

A more advanced knowledge of the subjects of the Pass Course.

(B) PRÉCIS AND BUSINESS METHODS.**Précis Writing.**

Précis Writing forms part of the Course.

BUSINESS METHODS.**Pass.**

Junior Grade Honour course.

Honours.

More difficult questions on the Pass course.

(C) BOOK-KEEPING.**Pass.**

Junior Grade Course, and, in addition, a knowledge of the following subjects:—Stocktaking; treatment of and provision for bad and doubtful debts; correction of errors; adjustment entries; partnership transactions; dealings in stocks and shares; transactions in connection with exports and imports; bills and entries in regard thereto.

Honours.

More difficult questions on the Pass Course.

(D) SHORTHAND.

A passage will be dictated at the rate of 60 words a minute (ten minutes' test). Any system of shorthand may be used.

Senior Grade.**GREEK.****Pass.**

Percentage
of Marks.

- | | | |
|---|-----------------------|----|
| 1. HOMER : | Iliad, Book VI. | |
| ÆSCHYLUS : | Persæ. | |
| LYSIAS : | Against Eratosthenes. | 30 |
| 2. Short passages from other Greek works for translation at sight. | | 30 |
| 3. A passage or passages of English prose to be translated into Greek | | 30 |
| 4. Greek history, from 404 B.C. to 323 B.C. | | 10 |

Honours.

- | | |
|---|----|
| 1. Passages from Greek authors for translation into English. | 45 |
| 2. A passage or passages of English prose to be translated into Greek. | 45 |
| 3. Greek history, from 404 B.C. to 323 B.C., and outlines of Greek literature from 479 B.C. to 323 B.C. | 10 |
| A passage of English verse for translation into Greek iambs. | |

LATIN.Percentage
of Marks.**Pass.**

1. **HORACE :** Odes, Book II. (omitting Odes 5, 8, and 11); and Epodes, 1, 2, 7, 9, 13, 16. 30
- LIVY :** Book XXVI.

2. Short passages from other Latin works for translation at sight 30
3. A passage or passages of English prose to be translated into Latin. 30
4. Roman history, from 91 B.C. to 70 A.D., and outlines of Roman literature and art within that period. 10

Honours.

1. Passages from Latin authors for translation into English. 45
2. A passage or passages of English prose to be translated into Latin. 45
3. Roman history, from 91 B.C. to 70 A.D., and outlines of Roman literature and art within that period. 10
- A passage of English verse for translation into Latin verse.

ENGLISH.

1. English Composition. 40
2. Literature. 25

SHAKESPEARE : Hamlet (School Edition).

Questions may be asked on the æsthetic principles involved in the structure of the play. Philological questions will not be asked.

TENNYSON : The Lotos Eaters ; The Palace of Art.

MACAULAY : Essay on Lord Clive.

3. Outlines of History :
Europe, with special reference to Ireland, Great Britain,
and France, A.D. 1748 to A.D. 1832.
4. Geography :
(a) General geography of America and Australasia.
(b) The British Empire in America and Australasia in
more detail.
(c) The geography of Poland and of Western Russia, the
Mesopotamian area and Armenia. } 35

Questions on Physical Geography may be asked.

5. General private reading should be done by all students from lists of books drawn up by the Board.*

*The selection made by the school should be intimated to the Office not later than October 1st.

HISTORY AND HISTORICAL GEOGRAPHY.**Honours Course only.**

In addition to a general knowledge of the Middle Grade Course :—

1. (a) General History of Europe and of the other Continents in so far as they come into direct contact with Europe, 1748-1832 and Historical Geography relative thereto.

(b) Period for special study : 1789-1815, including Historical Geography relative thereto.

(c) The progress of geographical discovery and colonisation, 1748-1832

FRENCH.**Pass.**Percentage
of Marks.

- | | |
|---|----|
| 1. Passages from French authors for translation into English. | 40 |
| 2. (a) Colloquial phrases and a passage of English prose for translation into French. | 25 |
| (b) Free composition in French. | 25 |
| 3. Literature : The life and works of Chateaubriand. | 10 |

Honours.

More difficult questions on the Pass course : more difficult passages for translation.

GERMAN**Pass.**

- | | |
|---|----|
| 1. Passages from German authors for translation into English. | 40 |
| 2. (a) Colloquial phrases and a passage of English prose for translation into German. | 25 |
| (b) Free composition in German. | 25 |
| 3. Literature : Life and works of Heine. | 10 |
- Students will not be required to write their answers in German handwriting.

Honours.

More difficult questions on the Pass course : more difficult passages for translation.

IRISH.**Pass.**

- | | |
|--|----|
| 1. AN SEABHAC : Eachtra Thaidhg Mhic Céin | |
| BEASLEY : Eachtra Pheadair Schlemihl (to end of page 42). | 30 |
| MACGINLEY : Cliall na Sean-Ráidhte. | 30 |
| 2. Short passages from other Irish works for translation at sight | 20 |
| 3. (a) Colloquial phrases and a passage of English for translation into Irish. | 20 |
| (b) Free composition in Irish. | 20 |
| 4. Literature : The Ossianic Cycle. | 10 |

Honours.

- | | |
|--|----|
| 1. Passages from Irish works for translation into English. | 30 |
| 2. (a) Colloquial phrases and a passage of English for translation into Irish. | 25 |
| (b) Free composition in Irish. | 25 |
| 3. Literature : The Ossianic Cycle. | 20 |

ITALIAN.**Pass.**

- | | |
|--|----|
| 1. Passages from Italian authors for translation into English. | 40 |
| 2. (a) Colloquial phrases and a passage of English prose for translation into Italian. | 25 |
| (b) Free composition in Italian. | 25 |
| 3. Literature : Life and works of Dante. | 10 |

Honours.

More difficult questions on the Pass course : more difficult passages for translation.

SPANISH.Percentage
of Marks.

- | | |
|--|----|
| 1. Passages from Spanish authors for translation into English. | 40 |
| 2. (a) Colloquial phrases and a passage of English prose for translation into Spanish. | 25 |
| (b) Free composition in Spanish. | 25 |
| 3. Literature : Life and works of Cervantes. | 10 |

Honours.

More difficult questions on the Pass course : more difficult passages for translation.

BOOK-KEEPING (as a separate subject).

The Middle Grade course, and in addition an elementary knowledge of the following subjects :—Auditing ; book-keeping and accounts of limited liability companies ; the tabular method ; and banking accounts.

ARITHMETIC.

Middle Grade course, and in addition :—

Present worth ; Banker's discount ; stocks and shares.

Graphical solutions of problems and interpretation of given graphs may be required.

The use of algebraic symbols and methods is permitted.

ALGEBRA.**Pass.**

Middle Grade Pass course, and in addition :—

Arithmetical and geometrical progressions ; Remainder Theorem and easy applications.

Honours.

Middle Grade Honour course ; permutations and combinations ; binomial theorem and applications (proofs of the binomial expansion will not be required except for the case of positive integral exponents) ; elimination ; simultaneous quadratic equations, and equations reducible to such and questions leading to them ; elementary summation of series ; harmonic mean of two quantities ; elementary theory of scales of notation ; annuities certain ; problems in maxima and minima whose solution depends on the theory of quadratic equations.

GEOMETRY.**Pass.**

An amount of geometrical knowledge approximately equivalent to that contained in Euclid, Books I., II., III., and IV. Deductions.

Honours.

The Middle Grade Honour course.—Questions may be set involving an elementary knowledge of : Centre of Mean Position, Coaxial Circles, Inversion, Poles and Polars, Harmonic Ranges, and other elementary applications of pure geometry.

The analytical geometry of the straight line and circle treated with reference to rectangular axes.

TRIGONOMETRY.**Pass.**

Trigonometry up to and including the solution of plane triangles ; simple cases of inverse functions ; properties of circumscribed, inscribed, and escribed circles of a triangle. Questions may be set involving a knowledge of the Senior Grade pass courses in the other pure mathematical subjects.

Use of logarithmic and trigonometrical tables. Books of tables (to four places) will be supplied at the examination.

Honours.

More difficult questions on the Pass course ; De Moivre's Theorem and easy applications to the expansion of trigonometrical functions ; easy summation of trigonometrical series. Questions may be set involving a knowledge of the Senior Grade Honour courses in the other pure mathematical subjects.

APPLIED MATHEMATICS.

In some simple questions candidates may be required to use graphical methods. Candidates should bring graduated rulers and protractors.

Pass.

Middle Grade Pass Course, and in addition :—

Problems on projectiles without reference to the form of the actual path. Motion of bodies connected by a string. Motion on inclined planes. Conservation of momentum. Direct collision of inelastic bodies. Moments. Elementary notions of couples. Parallel forces. Centre of gravity. Conditions of equilibrium of a system of plane forces. Lever, pulleys.

Honours.

Pass course, and in addition :—

Angular velocity and acceleration. Work, energy, power. Law of conservation of energy. Uniform motion in a circle. Harmonic motion. Motion in a vertical circle. Simple pendulum. Motion of centre of gravity of a system of particles. Conical pendulum. Hodograph. Laws of friction.

SHORTHAND (as a separate subject).

A passage will be dictated at the rate of 80 words a minute (ten minutes' test). Any system of shorthand may be used.

DRAWING.**OBJECT AND MEMORY DRAWING.**

The exercises will be of a more advanced character than those done in the Middle Grade and will be of such a standard as is required in the drawing of good examples of furniture and house fittings with their surroundings, or of the interior or exterior of buildings.

The drawings should be executed in point, with pencil or crayon, or with water colour in monochrome, and may be full tone studies.

MECHANICAL DRAWING AND DESIGN (FOR BOYS).

Candidates will be expected to letter all drawings with some standard type of lettering and to have a good knowledge of the work of the Middle Grade Syllabus.

In addition exercises on the interpenetration of solids may be set. Sections of machine and building details. Conventional means of representing cast iron, wrought iron, steel and brass.

The Design done in the Middle Grade should be extended to include designs involving good lettering, or for simple house fittings and articles of furniture.

MECHANICAL DRAWING AND DESIGN (FOR GIRLS).

Analysis of ornamental patterns, such as designs for wall decoration, lace, crochet, etc.

Preparation of designs suitable for illumination or for reproduction in simple crafts, such as stencilling, leather work, lace, crochet, or embroidery.

EXPERIMENTAL SCIENCE.**I—PHYSICAL SCIENCE COURSE.****SECTION I.—PHYSICS.**

1. **MECHANICS.**—Experiments with an inclined plane or Atwood's Machine to determine the laws governing the motion of a body moving with uniform acceleration. Experiments with a Fletcher trolley or Atwood's Machine to investigate the relation between the force acting, the mass moved and the acceleration acquired. Momentum. Work done by a body in falling through various heights. Potential and kinetic energy. Conservation of energy. Conversion of mechanical energy into heat.

2. **LIGHT.**—Images formed by convex lenses. Determination of principal focus; nature, position and size of image. Optical instruments. Dispersion of light by a prism. Spectrum of white light.

3. **MAGNETISM.**—Experiments illustrating the fundamental properties of a magnet. Magnetisation of iron and steel by means of magnets. Mapping of lines of magnetic force. Terrestrial magnetism.

4. **ELECTRICITY.**—Production of electric currents by chemical action. Source of energy. Polarisation. Common forms of cells. Magnetic force produced by a current in a circuit; tangent galvanometer; electromagnet; electric bell. E.M.F. of cells. Experiments to show how the resistance of a conductor depends on its material, length, and cross section. Experiments to establish Ohm's law. Practical Units—Volt, Ampere, Ohm. Wheatstone Bridge. Comparison of E.M.F.'s by potentiometer. Resistances in parallel and in series; grouping of cells in parallel and in series. Heating effects of a current. Experiments to show how the heat produced depends on the current and the difference of potential between the ends of the coil—Joule's Equivalent. Chemical effects of a current. Faraday's Laws. Formation and use of secondary cell. Electro-magnetic induction. Currents produced in a circuit by variation of the magnetic field. Direction of induced currents. Construction and working of simple dynamo.

SECTION II.—CHEMISTRY.

1. **THE ATOMIC THEORY.**—Application of the material provided by experiments performed in the preceding Courses to the discussion of the Laws of Constant Composition, Multiple Proportion and Reciprocal Proportions; Dalton's Atomic Theory, Gay Lussac's Law and Avogadro's Hypothesis. Meaning of chemical symbols and formulae.

2. **MOLECULAR WEIGHTS.**—Application of Avogadro's Law to the determination of molecular weights of gases and vapours. Victor Meyer's method for finding vapour densities.

3. **ATOMIC WEIGHTS.**—Deduction of atomic weights from molecular weights. Application of specific heat and Dulong and Petit's Law to the approximate determination of atomic weights. Use of equivalents in correcting these results.

4. **FORMULA FOR WATER.**—From experimental evidence supplied by the First Year Course it may be assumed that water is probably a compound of hydrogen and oxygen. Further evidence is supplied by the action of metals on water or steam. Electrolysis of acidulated water. Suggestions from this experiment as to the composition of water. By applying the Law of Reciprocal Proportions to the weights of hydrogen and oxygen "equivalent" to a fixed weight of magnesium the equivalent of oxygen may be found. Hence composition of water by weight. Reference should be made to Dumas' method of determining the composition of water, and his results should be stated. Density of water vapour. Deduction of the volumetric composition of water vapour, or steam. Formula for water.

5. **QUANTITATIVE RELATIONS BETWEEN ACIDS AND ALKALIS.**—Experiments to determine the basicity of an acid. Acidimetry and alkalimetry—use of indicators.

6. **GENERAL QUANTITATIVE RELATIONS.**—How to construct and interpret a chemical equation.

7. **COMMON METALS AND THEIR MORE IMPORTANT DERIVATIVES.**—Occurrence in nature of silver, lead, copper, iron, aluminium, zinc, calcium, sodium, potassium. Properties and principal reactions of the chlorides, nitrates, sulphates and carbonates of these metals and of the radicle "ammonium." Identification of the above simple salts in the solid state or in solution. Alloys.

II.—NATURAL SCIENCE COURSE.

SECTION I.—BOTANY.

Method of study. Advances over third year's work. Outdoor studies and Nature Calendar. Relationship of plants to one another, to animals and to physical surroundings. Seeds and Germination. Growth of the seedling. The adult plant. Period of vegetative development. Respiration. The plant in relation to the soil. Movements of water in plants. Carbon assimilation (Photosynthesis). Examination of leaf tissues. Storing of reserve food. The Flower, seed and fruit. Period of reproductive activity. Recognition of plants in the field. Flowering plants. Use of a School Flora. Special study of Pine, Fern, Moss, Alga, Fungus, and Bacteria.

SECTION II.—HYGIENE.

I. DIGESTION.—Further enquiry into the structure and functions of the digestive organs. Qualitative and quantitative study of typical foods, such as milk and its products, starchy foods, eggs, fish, meat bone and gelatine, vegetables and fruits; changes in foods due to cooking; the effect of the digestive ferments; action of intestinal bacteria. Comparative study of dietaries; foods as sources of animal energy; the hygiene of the digestive organs; diseases communicated by food and drink; recognition of sound and unsound food; methods of preserving foods. Beverages: value of plain water; properties of aerated waters, tea, coffee and cocoa. Properties of alcoholic drinks; effect of alcohol on tissues and on digestion.

II. CIRCULATION.—The course of the main blood vessels. Components and functions of the blood; clotting. Cardiac tissue, arteries and veins. Action of the blood in relation to cuts, bruises and inflammation. Discussion of the Lymphatic system. Functions of red marrow and spleen.

III. EXCRETION.—Structure and functions of the kidney. Structure and functions of the skin. Structure and functions of the lungs. Revision of instruction on source of body-heat, and regulation of body-temperature. Fever.

IV. HOUSE AND SCHOOL HYGIENE.—Water: its supply and distribution. Hardness. Hot water supply. Contamination of water by sewage: diseases carried by water; purification of water; domestic filters. Sewage: its removal; traps, drains, and sewers; sewer gas; testing of drains; disposal of house refuse. Ventilation: combustion products of fuels; ventilating devices; heating of buildings by steam, hot water, open fires, etc.

V. THE NERVOUS SYSTEM.—Main divisions of the brain; grey and white matter. Spinal cord and attachment of nerve roots. General functions of brain and spinal cord. Voluntary, reflex, and involuntary actions.

VI. RESUME.—The cell as the structural unit. Metabolism in relation to protoplasm. Nervous system as the controlling factor.

VII. SPECIAL SENSES.—Touch: The skin as a temperature indicator. Taste and smell: Simple structure of tongue and nostrils. Association of taste and smell. Sight: Structure and functions of the eye: accommodation; fatigue; blind spot; short and long sight; astigmatism; colour blindness; lighting of rooms. Hearing: Structure and functions of the ear.

VIII. SPEECH.—Structure and action of the larynx. Resonance of mouth cavity.

IX. MICRO-ORGANISMS IN HEALTH AND DISEASE.—Growth of bacteria and moulds. Widespread existence of germs. Nature and action of bacteria and moulds. Putrefaction: ptomaines. Beneficial bacteria. Common diseases due to micro-organisms, and general methods of prevention and cure. Deodorants, antiseptics and disinfectants.

X. EMERGENCIES AND SICK-NURSING.—Poisoning. Sick-nursing and care of sick-room. Precautions in the cases of fever. Treatment of the common diseases of childhood.

III.—DOMESTIC ECONOMY.

HYGIENE.

Foods.—Their nutritive qualities. Necessary food stuffs—proteins, carbohydrates, fats, salts and water. Accessories, condiments and stimulants.

Daily loss from the body.

Existence of carbon and nitrogen in proteins: proportion.

Complete foods and subsistence diets.

Tables showing amounts of carbohydrates, proteins and fats in various foods.

Suitability of ordinary combinations of foods.

Exercises on combining foods so as to produce a complete diet.

Alcohol.—Its coagulation of albumen. Effect on nervous system. Effects of abuse of alcohol on individuals as regards health, intelligence, and will power. Effects on individual's family.

Digestion.—Complete study of the processes of digestion. Comparative digestibility of foods. Assimilation. Effect of worry, fright, good humour, exercise, sedentary habits, number of meals, etc., on digestion. Consideration of the arrangement of courses for a dinner.

Exercise.—Growth of muscle by exercise, increase of respiration, effect on circulation, increase of perspiration. Excess of movement—fatigue, strain. Ill effects of lack of exercise. Rest; change of occupation. Sleep. Effect of bathing feet in hot water. Position of sleeper's head. Amount of sleep necessary for children and others.

COOKERY.

Food—choice, purchase, storage, preservation and marketing value of fresh and preserved foods.

Testing of foods—of milk for added water; for foreign fats in butter; for the freshness of eggs; of bread for alum or copper sulphate, of arrowroot for added starch, of tea for mixture of other leaves, of coffee for chicory and of cocoa for starch.

Feeding of infants and young children. Desirability of sterilizing milk for infants. Feeding bottles.

Diseases of children directly caused by unsuitable food—indigestion, convulsions, cholera infantum, rickets, and scurvy.

The cooking of complete *menus* could be continued in this year, and the pupils should now give more attention to the composition of the various dishes and the proper way in which different foods should be combined, in reference to the respective proportions of carbon and nitrogen, their digestibility, etc. The mode of cooking should be well varied in each dinner to show how the cooking of different dishes can be conveniently combined so as to save time. *Menus* should consist of two kinds of meat, or meat and fish, and the price reckoned as before. Several *menus* in which neither fish nor meat appear should be cooked. A few breakfast dishes, such as oatmeal, different rissoles, as well as breakfast cakes, should be done. The cooking of food for infants and children may also be given, as well as some invalid cookery.

Invalid Cookery.—Cooling drinks, lemonade, barley-water, toast and water, beef-tea, chicken broth, with a knowledge of how they should be flavoured. Gruel, invalid's fish, outlet. Egg-flip, jelly. One or more of these can be made in addition to the dinner.

Jam making.

Making of yeast bread.

HOUSEHOLD KNOWLEDGE.

Care of the house.

Qualities of a good housekeeper. Economic value of order, cleanliness, activity, thrift, and forethought, as well as good humour and good taste.

Site and aspect of a house. Letting and renting houses. Leases. Liability of landlord and tenant for repairs. The cleaning of windows. Cleaning of inside walls, ceilings, and floors.

Artistic arrangement of furniture—colour schemes, suitability for purpose in view, simplicity.

Kitchen.—Complete cleaning of kitchen, how it should be done. Position of kitchen in house; value of a wash house.

Bedrooms.—Beds, mattresses, coverings. Disadvantages of bed curtains, tapestries, large carpets and plants. Ordinary furniture of bedroom, its position and care. Advantages of simplicity and good taste in furniture.

Bathroom.—Care of fittings.

Dining-room.—Use, furniture and care.

Drawing-room.—Use, furniture and care.

The Yard.—When and how to clean it.

Drains and water-closets, how to disinfect and deodorize. The position of water cisterns, sinks, lavatory basins, etc. Steps to be taken in the case of leaks, bursts, or stoppages.

Arrangement of work in ordinary house, according to size—daily and weekly. The class ought to work this time-table out under direction of teachers.

Servants.—Qualities to be looked for in a servant. Hiring servants. Methodical arrangement of daily and weekly duties. Dismissing servants. Giving recommendations.

Practice lessons in cleaning should be arranged. If the actual objects which form the furniture of a house are not easily accessible, some of the materials which compose them should be at hand, e.g., polished wood, mirror, gilded frames, bronzes, marble, etc. Practice in cleaning.

Household accounts. Tradesmen's pass books.

Advantages and disadvantages of credit and ready money. Disposal of income—factors which guide the proportion of income devoted to various expenditures.

Saving.—Savings banks and insurances.

LAUNDRYWORK.

Removal of stains from clothing and household linen.

Materials used in laundrywork, use and abuse of chemicals.

Utensils used in laundrywork—purchase and care.

Practice in washing and finishing white clothes, table linen, woollens, prints, laces and silks.

NEEDLEWORK.

Measuring and Pattern Drawing.—The pupils at this stage should be able to take measurements easily and quickly.

Pattern skirt and underskirt.

Patterns cut out in paper and material.

Making.—Plain walking skirt, lined; underskirt.

All work should be fitted by pupils themselves after a general demonstration.

Cost.—The prices and lengths of materials for garments made should be reckoned as before.

MUSIC.

The editions mentioned in this Programme are for purposes of identification only.

(A) COURSE FOR THE PRACTICAL EXAMINATION.

(1) For particular instruments.

PIANO.

SCALES:—All the major and minor (harmonic and melodic) scales, legato and staccato. The chromatic scale beginning on any note. Compass, 4 octaves. All the major and harmonic minor scales in contrary motion. Compass, 2 octaves.

ARPEGGIOS :—All the major and minor common chords and their inversions in extended position. Hands separate and together. Compass, 4 octaves.

STUDIES :—(a) Bach, *Prelude in E minor* (No. 16, J. Williams).
(b) Cramer's *Study in G*. (Grade 3, *Studies*, I.S.M., Lengnick).

PIECES :—(a) Schumann, *Romance in F sharp*.
(b) Chopin, *Waltz in E minor*; (Book 2, Grade 4, I.S.M., Lengnick).

or as an alternative :—

(a) Scarlatti, *Sonata in F minor* (Book 3, Grade 4, I.S.M., Lengnick).
(b) Swinstead "Evensong." (Augener).

VIOLIN.

SCALES :—All major, harmonic, and melodic minor scales. Compass 2 octaves, (a) detached, (b) slurred in eights. Chromatic scales, beginning on any note. Compass, 2 octaves, slurred in eights.

ARPEGGIOS :—Arpeggios of major and minor common chords, (a) detached, (b) slurred in sixes. Compass, 2 octaves.

STUDIES :—Any two studies from Kreutzer, *Forty Studies*.

PIECES :—Handel, *Sonata in E* (1st and 2nd movements) (Novello);
or as an alternative :—
F. Bridge "Gondoliers." (Augener).
or Elgar, "Romance" in E minor. (Schott)

VIOLONCELLO.

SCALES :—All the major scales. All the minor scales (harmonic form). Compass, 2 octaves, (a) detached, (b) slurred in eights.

ARPEGGIOS :—The major and minor common chords of the above scales. Compass, 2 octaves, (a) detached, (b) slurred in sixes.

STUDIES :—Dotzauer, *Etudes*, Op. 107, Nos. 8 and 11. (Ashdown.)

PIECES :—(a) Marcello, *Sonata in G minor*. 1st and 2nd movements. Piatti Ed. (Ricordi);
or as an alternative :—
Teague, "Idylle." (Lengnick)

HARP.

SCALES :—Major scales. Harmonic and melodic minor scales, with hands separate and hands together, one octave apart. Compass, 3 octaves.

ARPEGGIOS :—Arpeggios of major and minor common chords. Chords of the dominant and diminished 7th, with hands separate and hands together, one octave apart. Compass, 3 octaves.

STUDIES :—Bochsa, *Forty Studies*, Book I. (Chappell), Nos. 1 and 6.

PIECES :—(a) Handel, *Harmonious Blacksmith* (Ashdown), and (b) G. Lorenzi, *Ondina* (Hutchings and Romer).

(2) For all Students.

Reading at Sight :—A piece about as difficult as Junior Grade pieces.

Ear Test :—To recognise any interval within compass of an octave, between G below the middle C of piano and G above the treble stave.

(B) COURSE FOR THE EXAMINATION IN THEORY.**Pass.**

Harmony :—Middle Grade Pass course. In addition, the chord of the dominant 7th and its inversions Cadential $\frac{7}{4}$, passing $\frac{7}{5}$. A given figured bass or 8-bar melody to test knowledge of the foregoing.

Honours.

Harmony :—Diatonic and Chromatic (e.g. the whole of a Text Book) and more advanced melodies for harmonisation.

COMMERCIAL COURSE.**(A) INDUSTRIAL HISTORY AND COMMERCIAL GEOGRAPHY.****INDUSTRIAL HISTORY.****Pass.**

The Industrial History of Ireland and England from 1760 to 1850, covering the following :—

The industrial and commercial revolutions. Effect on Irish and English commerce of the loss of the American colonies. Position of commerce and agriculture before and after the Union. The great inventions. Economic results in England and Ireland of the revolutionary and Napoleonic wars. Internal communications. Penny postage. Relations of labour and capital. Decrease of the rural population and growth of the towns. Bank legislation in England and Ireland. The factory system and legislation dealing with it. Free trade movement, with special reference to the corn question. Poor Law. Abolition of Irish currency. Development of means of transit in Ireland and results of steamship communication with England. The middleman system. Condition of tillage and cattle raising in Ireland. Effects of the Great Famine in Ireland.

Honours.

More difficult questions on the Pass course.

COMMERCIAL GEOGRAPHY.**Pass.**

In addition to the Course defined for the Junior and Middle Grades, the position, configuration, and climate of the different parts of the British Empire and their influence on :—

1. The distribution of population and of the employments of the people.
2. The various productions, mineral, vegetable, and animal.
3. Manufactures, their localisation and economic effects.
4. Imports and exports : their nature, origin and destination.

5. Trade routes : their direction and most important freights.
The linking up of the principal ports with manufacturing centres and with each other.
6. The food supply.
7. Communication by railroad and canal.

Honours.

A more advanced knowledge of the subjects of the Pass course.

(B) BUSINESS METHODS.

Pass.

The Middle Grade Course, and in addition—Stock-Exchange and Market Reports. Insurances. Bills of Exchange. Currency and Bimetallism. Private Firms and Public Companies. (As dealt with in Pitman's Business Training or some similar Manual.)

Honours.

More difficult questions on the Pass course.

(C) BOOK-KEEPING.

Pass.

The Middle Grade Course, and in addition an elementary knowledge of the following subjects:—Auditing; book-keeping and accounts of limited liability companies; the tabular method; and banking accounts.

Honours.

More difficult questions on the Pass Course.

(D) SHORTHAND.

A passage will be dictated at the rate of 80 words a minute (ten minutes' test). Any system of shorthand may be used.

(E) ELEMENTS OF ECONOMICS.

Pass.

The scope and method of political economy. Definition of fundamental terms.

The factors of production : land, labour, capital and organisation—Laws of increasing and diminishing returns—Conditions affecting the efficiency of the factors of production—Division of labour : advantages

and disadvantages—Introduction of machinery: advantages and disadvantages—Large and small scale productions: causes which determine them: advantages and disadvantages—Localisation of industry: cause and effect.

The principles of distribution—Marginal worth—Rent—Interest—Profits—Wages.

Barter—Money and the mechanism of exchange—Outline of the monetary and banking system of the United Kingdom—The process of exchange—utility, value, price—Operation of supply and demand.

Honours.

More difficult questions on the Pass course.

Given under our Common Seal

this 24th day of March, 1920.

L.S.

Present at Board Meeting when Seal was affixed

W. F. BUTLER,

W. A. HOUSTON,

Assistant Commissioners.

WE, JOHN DENTON PINKSTONE, VISCOUNT FRENCH OF YPRES, Lord Lieutenant-General and General Governor of Ireland, do hereby approve of the foregoing Rules and Schedule.

(Signed), FRENCH.

Dated this 30th day of March, 1920.

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